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Technical Note

1975-66

L. G. Taff

A Combined

Photometric-Astrometric Catalog

19 December 1975

Prepared for the Department of the Air Force under Electronic Systems Division Contract F19628-76-C-0002 by

## Lincoln Laboratory

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LEXINGTON, MASSACHUSETTS



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FOR THE COMMANDER

Eugene C. Raabe, Lt. Col., USAF

Chief, ESD Lincoln Laboratory Project Office

# MASSACHUSETTS INSTITUTE OF TECHNOLOGY LINCOLN LABORATORY

#### A COMBINED PHOTOMETRIC-ASTROMETRIC CATALOG

L. G. TAFF
Group 94

TECHNICAL NOTE 1975-66

19 DECEMBER 1975

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LEXINGTON

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#### ABSTRACT

A compilation catalog containing UBVRI photometry, 1976.0 positions, and 1976.0 proper motions for 873 stars of the FK4 is presented. In addition, multiple identifications (FK4#, HD#, GC#, DM#) are included.

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#### A COMBINED PHOTOMETRIC-ASTROMETRIC CATALOG

#### I INTRODUCTION

Lincoln Laboratory is currently engaged in the construction and software development for a semi-automatic electro-optical observatory. An important function will be astrometric and photometric observations of artificial earth satellites. In the process of calibration the collection of astrometric and photometric data on other celestial objects will be an important by-product. For reasons connected with maximizing the semi-automatic nature of the observatory and the design of the photometer both astrometric and photometric standard stars are required. The possibility of a combined catalog was investigated. The result is presented here.

#### II. CONSIDERATIONS

The routine observing program that we are anticipating and the equipment that we are installing places some limitations on the nature of the stars to be used as astrometric or as photometric standards. However, the need for a reasonable number of bright stars distributed over the entire sky is still present. Thus, our first inclination was to use the 1535 stars of the FK4 catalog (Fricke and Kopff<sup>1</sup>) as astrometric standards.\*

Next, consideration was given to the construction of a set of photometric standards that will allow us to tie into the UBVRI system.

After a preliminary survey of bright stars, non-variable stars, and stars

<sup>\*</sup> It is our intention to use the Smithsonian Astrophysical Observatory Star Catalog (1966) for differential measurements. However, for absolute pointing of the telescope a fundamental catalog is needed.

sufficiently diverse in color was performed, we realized that there were enough stars within the FK4 to satisfy our requirements. Thus, a compilation catalog of the UBVRI photometry of the FK4 stars was constructed and is presented here (Table 1).

#### TII. CATALOG CONSTRUCTION

One of the problems we encountered in compiling the catalog was the multiplicity of names for various stars. Although every effort has been made to insure the accuracy of the entries listed in Table 1, this catalog is a compilation catalog, not a fundamental catalog. Thus, since we hope the information presented will be generally useful to the astronomical community, an effort was made to provide maximum alternative designations for each star. This will also allow rapid, unambiguous reference to the original sources of our data.

As the FK4 catalog was our primary source both the name and FK4 number are included here. Further identification is provided by the Boss  $^2$  General Catalogue number (GC#), the Henry Draper Catalogue number (HD#), and the Durchmusterung number (DM#). The right ascensions and declinations for epoch 1976.0 listed here are accurate to  $0^{\rm S}$ .001 and  $0^{\rm C}$ .01 respectively. The proper motions in right ascension ( $^{\rm S}$ /cent) and declination ( $^{\rm C}$ /cent) are also included. All of the positional data comes from the FK4. It has been updated using the formulas in the Introduction to the FK4.

Except for stars which are primary or secondary standards of the UBV  $_{\rm System}$  (Johnson $^{3}$ ) photoelectric and spectral type data were obtained

from the catalog of Blanco et al.<sup>4</sup> The V magnitudes and B-V, U-B colors listed here represent simple averages of the entries in Blanco et al. Known corrections (Ochsenbein<sup>5</sup>) and obvious typographical errors in the GC or Blanco catalogs have not been propagated here. This is especially true of misidentifications. The V-R and V-I colors have been taken from Iriarte et al.<sup>6</sup>

Table 1 contains information for 873 of the FK4 stars. The remaining stars were either variable, eclipsing binaries, close binaries ( $12^{"}.5$  > a >  $1^{"}.0$ ), or without photoelectric data.

#### IV. CATALOG DESCRIPTION

Columns 1 and 2 contain the number of the star in the FK4 catalog and its name as given there. Columns 3 and 5 contain the positional data for 1976.0 and columns 4 and 6 the respective proper motions as of 1976.0. Columns 7 - 12 contain the star's V magnitude, its UBVRI colors, and its spectral type. Columns 13 - 16 contain the GC, HD, and DM numbers. An asterisk immediately following the GC number indicates that the star is a primary or secondary UBV standard.

The catalog will be most useful in machine readable form. It can be obtained in this form by communicating with the author. The reasons I have presented the full printed version here are (i) it allows the reader to ascertain the actual contents, and (ii) with this information he can decide the usefulness of the catalog relative to his own needs, furthermore (iii) for those readers who only desire a small subset of the 873 stars presented here (e.g., G type stars with UBVRI photometry) the needed information is at hand immediately.

TABLE 1

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT	DECLINATION	
905	2 CET ALP AND RET CAS FPS PHE 22 AND	0 2 30.629 0 7 8.563 0 7 53.224 0 8 11.826 0 9 3.982	1.039 6.815 1.233	-17 28 10.44 +28 57 28.87 +59 1 3.00 -45 52 47.52 +45 56 19.80	-0.41 -15.83 -17.67 -17.71 0.48
1004 1005 10 1008	THE SCL CHI PEG SIG AND ZET TUC 41 PSC	0 10 30.885 0 13 21.447 0 17 4.095 0 18 49.802 0 19 21.619	0.669 -0.525 26.984	-35 16 2.57 +20 4 24.02 +36 39 8.59 -65 0 56.91 + 8 3 25.48	12.61 0.49 -3.50 116.73 1.35
1009 1016 11 12 1012	RHO AND 44 PSC RET HYT ALP PHE 48 PSC	0 19 51.083 0 24 10.267 0 24 30.862 0 25 6.035 0 26 57.691	-0.100 68.038 1.866	+37 50 9.06 + 1 48 24.74 -77 23 21.74 -42 26 10.58 +16 18 44.95	32.73 -39.02
15 16 18 17 19	IAMI PHE KAP CAS PI AND ZET CAS FPS AND	0 30 15.708 0 31 37.310 0 35 35.620 0 35 37.471 0 37 16.957	0.024 0.127 0.211	-48 56 9.89 +62 47 58.55 +33 35 14.80 +53 45 54.34 +29 10 54.10	0.27 -0.02 -0.50
21 1015 23 22 26	ALP CAS MU PHF FTA PHE RET CET LAM2 SCL	0 39 8.087 0 40 11.655 0 42 16.785 0 42 23.079 0 43 2.543	-0.165 -0.023 1.627	+56 24 21.67 -46 12 59.63 -57 35 40.36 -18 7 5.37 -38 33 13.42	0.53 1.56 3.64
25 28 1020 31 1021	OBI CAS DEL PSC 64 PSC LAM HYI NU AND	0 47 26.082 0 47 42.825 0 47 45.766	0.561 9 -0.015 5 3.524	+16 48 40.68	-4.61 -20.03 -2.74
30 1022 34 33 35	PHIZ CET 20 CET LAM TUC MU AND ALP SCL	0 48 55.401 0 51 46.785 0 54 6.803 0 55 24.892 0 57 26.994	0.040 0.211 1.292	-10 46 23.89 - 1 16 27.69 -69 39 24.22 +38 22 10.26 -29 29 13.16	-1.30 -4.07 3.70
1026 36 37 39 1030	SIG SCL FPS PSC P6 CET TOT TUC MUJ CAS	1 1 17.678 1 1 41.705 1 2 34.766 1 6 21.838 1 6 39.783	0.781	-31 40 51.53 + 7 45 40.46 + 1 14 18.55 -61 54 11.62 +54 48 11.65	2.78 -3.76 -0.49
1031 40 42 1032 43	HPS PHE FTA CET RET AND CHI PSC TAU PSC	1 6 42.160 1 7 22.888 1 8 22.93 1 10 9.56 1 10 20.00	1.450 1.460 3 0.268	+35 29 37.43	-13.28 -10.97 -0.61

TABLE 1 CONTINUED

V B-V U-B	COLORS V-R V-I		HD NUMBER	GC NUMBER		M BER I	FK4
4.54 -0.05 -0.12 2.07 -0.10 -0.40 2.27 0.34 0.10 3.87 1.01 0.85 5.03 0.40 0.26	0.03 0.00 -0.02 -0.12 0.31 0.52 0.75 1.27 0.41 0.70	R9P F21V K0111	225132 358 432 496 571	23 127 147 158 169	-18 28 58 1 45	6417 4 3 57 17	905 1 2 3 4
5.24 0.45 0.00 4.80 1.58 1.92 4.52 0.06 0.07 4.24 0.57 0.02 5.36 1.34 1.53	1.33 2.45 0.08 0.08		739 1013 1404 1581 1635	202 270 362 401 413	-35 19 35 -65 7	42 27 44 13 36	6 1004 1005 10
5.15 0.43 0.00 5.75 0.86 0.55 2.80 0.62 0.11 2.35 1.09 0.87 6.09 1.61 2.05	0.81 1.40	F5IV GG5 G2IV K0III GK5	1671 2114 2151 2261 2436	425 496 503 519	37 1 -77 -42 15	45 57 16 116 63	
4.76 0.01 0.04 4.16 0.13 -0.80 4.36 -0.14 -0.55 3.64 -0.20 -0.85 4.37 0.87 0.46	-0.06 -0.28	R5V R2V	2834 2905 3369 3360 3546	619 645 729 727 759	-49 62 32 53 28	115 102 101 105 103	15 16 18 17 19
2.22 1.17 1.13 4.58 0.96 0.73 4.36 0.00 -0.02 2.03 1.02 0.87 5.86 1.20 0.00	0.79 1.38 0.75 1.27 0.72 1.24	GRIII AOV	3712 3919 4150 4128 4211	792 823 866 865 879	55 -46 -58 -18 -39	139 180 42 115 181	21 1015 23 22 26
4.54 -0.08 -0.51 4.43 1.50 1.86 5.07 0.51 0.00 5.06 1.37 1.68 4.53 -0.15 -0.58	0.05 0.00 1.17 2.04 -0.03 -0.18	K5III F8V K5III	4180 4656 4676 4815 4727	862 963 968 983 989*		183 107 76 64 171	1020
5.19 0.51 -0.02 4.77 1.57 1.92 5.44 1.09 1.01 3.86 0.14 0.14 4.30 -0.16 -0.53	1.23 2.14 0.15 0.23 -0.03 -0.16	G7III A5V	4813 5112 5457 5448 5737	1003 1055 1102 1122 1172	-11 - 1 -70 37 -30	153 114 40 175 297	30 1022 34 33 35
5.51 0.08 0.13 4.27 0.96 0.70 6.11 0.26 0.06 5.36 0.88 0.00 5.16 0.69 0.10	0.78 1.31	A2V K01II NFO G5III G5VP	6178 6186 6288 6793 6582	1252 1258 1281 1372 1360	-32 7 0 -62 54	410 153 174 89 223	1026 36 37 39 1030
5.20 0.16 0.08 3.44 1.16 1.19 2.06 1.60 1.96 4.65 1.02 0.82 4.51 1.04 1.01	0.84 1.41 1.24 2.24 0.76 1.30 0.82 1.40	MOIII	6767 6805 6860 7087 7106	1378 1384 1400 1437 1441	-42 -10 34 20 29	391 240 198 172 190	1031 40 42 1032 43

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT		PROPER MO- TION IN DEC SEC/CENT
1033 1034 45 1035 47	ZET PSC A9 PSC HPS PSC XI AND THE CET	1 12 28.479 1 16 33.511 1 18 8.548 1 20 55.136 1 22 49.335	-0.345 0.187 0.302	+ 7 26 55.75 + 3 29 18.49 +27 8 18.25 +45 24 12.73 - 8 18 24.88	-1.95
48 1039 49 1043 1042	DEL CAS 94 PSC GAN PHE 48 CET 38 CAS	1 24 13.898 1 25 23.646 1 27 19.462 1 28 27.019 1 29 25.064	0.345 -0.148 0.380	+60 6 40.17 +19 6 59.47 -43 26 27.04 -21 45 11.07 +70 8 30.62	-5.59
1044 1045 52 51 54	DEL PHE DPS AND 51 AND 40 CAS ALP ERI	1 30 15.212 1 35 22.865 1 36 30.612 1 36 33.896 1 36 49.367	-1.534 0.661 -0.243	-49 11 49.40 +41 17 9.57 +48 30 26.14 +72 55 6.70 -57 21 29.95	
56 55 54 1048 59	NU PSC 43 CAS 1296 SCL PI SCL TAU CET	1 40 10.784 1 40 32.495 1 40 59.486 1 41 3.569 1 42 57.130	0.955 -0.310 -0.586	+ 5 22 0.03 +67 55 20.82 -36 57 11.20 -32 26 51.27 -16 3 48.20	0.64 -0.33 -2.05 -2.21 86.05
60 1050 62 1052 64	OMI PSC 4 ARI 7ET CET 2 PER ALP TRI	1 44 7.395 1 46 52.582 1 50 16.451 1 50 37.131 1 51 42.484	0.359 0.238 0.154	+ 9 2 14.88 +16 50 11.83 -10 27 11.25 +50 40 29.77 +29 27 45.36	5.16 -3.13 -3.62 -2.16 -22.95
63 57 66	YI PSC FPS CAS PSI PHF RET ARI PHI PHF		0.490 -0.829 0.686	+ 3 4 10.68 +63 33 9.89 -46 25 11.10 +20 41 28.74 -42 36 51.70	-1.51 -8.05 -10.77
1054	FTA2 HYI ALP HYI UPS CFT 4 PER 50 CAS	1 54 19.524 1 58 0.861 1 58 52.398 2 0 41.499 2 1 21.160	3.780 0.938 0.400	-67 45 54.42 -61 41 10.62 -21 11 37.00 +54 22 20.55 +72 18 22.60	3.26
105A	NU FOR ALP ART RET TRI XI1 CET 19 ARI	2 3 24.872 2 5 48.949 2 8 6.543 2 11 43.483 2 11 44.526	1.383 1.201 -0.167	-29 24 41.53 +23 20 58.70 +34 52 28.24 + 8 44 5.47 +15 10 5.00	-14.40
	MU FOR PHI ERI 67 CET GAM TRI THE ARI	2 11 51.056 2 15 39.144 2 15 47.084 2 15 52.888 2 16 47.187	1.016 0.592 0.372		

TABLE 1 CONTINUED

V M	AGNITUE B-V	DES AND		V-1	SPECTRAL TYPE	HD NUMBER	GC NUMBER	ON NUME		FK4 NUMBER
0							. ***		ļ	
5.23	0.27	0.09			FOV	7344	1476	6	174	
5.16	0.07	0.08		0 - 7	A3V	7804	1566	2	185	
4.76	0.03	0.11	0.08	0.13		7964	1591	26	550	
4.87	1.07	0.99	0.81	1.34		8207	1647	44	287	
3.60	1.06	0.94	0.76	1.33	KOIII	A512	1695	- 8	244	47
2.68	0.13	0.12	0.15	0.24		8538	1715*		248	
5.50	1.11	1.06	. 21	0 01	GK1	8763	1740	18	189	
3.40	1.56	1.84	1.26	2.24		9053	1787	-43	449	
5.11	0.02	0.02			Δ1V	9132	1808	-22	254	
5.82	0.47	0.00			DF6	9021	1817	69	102	1042
3.93	0.98	0.72	0.75	1.26		9362	1847	-49	425	
4.09	0.54	n.06	0.46	0.78	F8V	9826	1948	4.0	332	1045
3.57	1.28	1.45	0.96	1.61	k3III	9927	1966	47	467	52
5.28	0.96	0.00			GSII	9774	1955	72	86	51
0.49	-0.17	-0.67			R5V	10144	1979	<del>-</del> 57	334	54
4.44	1.36	1.56	1.06	1.77	кЗПП	10380	2055	4	293	56
5.57	-0.07	-0.28			AOP	10221	2045	67	149	55
5.71	-0.01	0.00			ΔΟΛ	10538	2082	-37	65n	58
5.26	1.04	0.00			GK 0	10537	2085	-32	666	1048
3.50	0.72	0.20	0.62	1.09	G8VP	10700	2123*	-16	295	59
4.26	0.96	0.72	0.74	1.23	68111	10761	2139	8	273	60
5.73	-0.03	-0.12			89.5V	10982	2188	16	203	1050
3.72	1.14	1.07	0.80	1.35	KSIII	11353	2249	-11	359	62
5.64	-0.06	-0.30			R9	11291	2246	5 n	079	1052
	0.50		0.42	0.70	F6IV	11443	2272	88	312	64
4.61	0.94	0.72	0.73	1.20	KOIII	11559	2293	2	290	65
3.37	-0.16	-0.60				11415	2289	62	320	63
4.40	1.59	1.70	1.73	3.24		11695	2303	-46	552	67
		0.10			A5V	11636	2309*	20	306	66
		-0.14				11753			583	
4.68	0.94	0.64			68111	11977	2331	-68	101	69
2.86	0.28	0.10			FOV	12311	2405	-62	162	72
3.99	1.58	1.92	1.26	2.29	MIIII	12274	2419	-21	358	71
5.00	-0.08	-0.31	0.03	-0.01	BAV	12303	2442	53	439	1054
3.95	0.00	0.04	0.07	0.06	A1V	12216	2445	71	117	70
4.69	-0.16	-0.49	-0.03	-0.18	AOVP	12767	2506	-29	706	1055
				1.48		12929	_		306	
				0.22		13161			381	
		0.60				13611			345	
	1.56			2.20		13596			357	
5.27	-0.02	0.00			AZV	13709	2663	-31	882	78
	-0.12					14228		-52	285	
	0.96					14129	2748	- 7	393	
	0.02		0.04	0.03		14055			397	
	0.02				A1 V				340	

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT	DECLINATION	
1063 1065 83 1067 84	62 AND DEL HYT KAP FOR KAP HYT LAM HOR	2 17 43.331 2 21 19.119 2 21 26.619 2 22 42.987 2 24 13.603	-0.780 1.442 -1.893	+47 16 12.52 -68 46 6.19 -23 55 29.49 -73 45 16.14 -60 25 8.59	0.87 -5.66 1.30
1066 86 85 1069 1070	RHO CET KAP ERI XI2 CET 27 ARI 14 TRI	2 24 47.320 2 26 6.336 2 26 52.783 2 29 34.273 2 30 37.889	0.214 0.249 0.212	-12 23 53.12 -47 48 40.10 + 8 21 11.66 +17 35 54.51 +36 2 30.20	-0.50 -0.42
1071 88 90 1074 89	SIG CET LAM1 FOR MU HYI AO CET MU ARI	2 30 56.882 2 32 6.934 2 32 8.866 2 34 49.037 2 37 26.943	-0.164 4.538 -0.258	-15 20 57.57 -34 45 18.02 -79 12 51.44 - 7 56 7.16 +21 51 30.44	-1.59 -4.44 -5.71
95 1075 1076 94 1077	FPS HYI TOT ERI ZET HOR 35 ARI 14 PER	2 39 12.970 2 39 43.172 2 39 54.794 2 42 2.304 2 42 30.885	1.165 0.459 0.060	-68 22 10.12 -39 57 27.12 -54 39 8.11 +27 36 21.42 +44 11 45.65	-2.52
93 97 98 101 100	THE PER PI CET MU CET PET FOR 41 ARI	2 42 33.052 2 42 58.719 2 43 38.487 2 48 5.130 2 48 33.965	-0.080 1.899 0.713	+49 7 41.01 -13 57 34.81 +10 0 49.07 -32 30 22.05 +27 9 45.17	-1.30 -3.07 15.84
104	TAU2 ERI SIG ARI FTA ERI	2 49 56.909 2 50 9.864	-0.379 0.215 0.501	+55 47 49.41 -21 6 8.21 +14 59 2.47 - 8 59 34.52 +20 34 24.30	-1.76 -2.36 -21.72
1082 1083 107 1085 1086	ALP CET	2 57 34.079 2 58 25.535 3 1 1.3330 3 1 19.949 3 2 6.561	0.021 -0.083 -1.074	+35 5 16.64 + 8 48 45.37 + 3 59 47.12 -23 43 4.18 -47 4 6.73	-1.00 -7.43
110 108 112 1088 114	MU HOR GAM PER TOT PER 55 ARI DEL ARI	3 3 2.770 3 3 2.840 3 7 19.513 3 8 9.801 3 10 15.171	0.004 12.972 0.153	-59 49 49.73 +53 24 49.30 +49 31 22.59 +28 59 11.25 +19 38 12.90	-0.20 -8.20 -0.97
1089 1091 1095 1093 119		3 13 31.080 3 14 39.939 3 16 31.816 3 18 5.994 3 18 58.130	-0.054 3.507 1.781	+20 57 23.44 - 8 54 29.01 -77 28 35.40 + 3 16 59.22 -43 9 38.77	9.71

TABLE 1 CONTINUED

MAGNITUDES AND V B-V U-B	COLORS V-R V-I			GC NUMBER		FK4 R NUMBER
5.32 0.00 0.00 4.08 0.03 0.05 5.19 0.60 0.00 5.00 1.09 1.05 5.34 0.40 0.00		AOV A2V G1V KOIII F2III	14212 15008 14802 15248 15233	2779 2872 2862 2913 2931	-69 1 -24 10 -74 1	52 1063 13 1065 38 83 94 1067 99 84
4.88 -0.03 -0.06 4.24 -0.14 -0.46 4.28 -0.06 -0.13 6.23 0.90 0.54 5.15 1.47 1.78	-0.03 -0.16	RSIII	15130 15371 15318 15594 15656	2932 2954 2960* 3032	-48 6 7 3 17 3	51 1066 37 86 88 85 80 1069 97 1070
4.75     0.45     -0.03       5.90     1.06     0.00       5.27     0.98     0.74       5.52     1.60     1.93       5.30     0.16     0.18	0.41 0.68	F5IV GKO G4III M0III A7V	15798 15975 16522 16212 16432	3045 3067 3102 3126 3167	-35 8 -79 - 8 4	49 1071 77 86 66 90 89 1074 62 89
4.10       -0.06       -0.12         4.10       1.02       0.75         5.20       0.42       0.00         4.65       -0.14       -0.63         5.43       0.90       0.65	0.79 1.35	nF5	16978 16815 16920 16908 16901	3240 3237 3246 3273 3278	=40 6 =55 4 27 4	61 95 89 1075 46 1076 24 94 66 1077
4.11 0.49 -0.01 4.23 -0.14 -0.44 4.26 0.31 0.06 4.45 0.98 0.70 3.61 -0.11 -0.35	-0.01 -0.15 0.31 0.50	6 R7V F0IV G6III	16895 17081 17094 17652 17573	3277 3300 3309 3387 3391	-14 5 9 3 -32 10	46 93 19 97 59 98 25 101 71 100
3.77 1.69 1.90 4.76 0.91 0.63 5.46 -0.08 -0.46 3.89 1.11 1.00 5.80 0.41 0.01	1.23 2.12 0.70 1.17 0.79 1.37	KOIII R7V	17506 17824 17769 18322 18404	3390 3429 3427 3539 3562	-21 5 14 4 - 9 5	114 99 109 102 80 1079 553 104 80 1081
4.94 1.24 1.29 4.70 -0.11 -0.45 2.52 1.64 1.95 4.07 0.16 0.09 5.82 1.30 0.00		R5III M2III	18449 18604 18884 18978 19141	3575 3595 3643 3649 3667	8 4 3 4 -24 13	550 1082 555 1083 19 107 687 1085 932 1086
5.10 0.35 0.00 2.94 0.69 0.45 4.05 0.59 0.12 5.72 -0.09 -0.15 4.35 1.03 0.88	0.61 1.06 0.54 0.83 0.77 1.28	GOV B7V	19319 18925 19373 19548 19787	3694 3664 3740 3762 3805	52 6 49 8 28 4	236 110 554 168 557 112 599 1088 577 114
4.90     0.00     0.00       4.80     0.23     0.09       5.51     0.44     -0.02       4.82     0.68     0.18       4.26     0.71     0.21	0.08 0.05 0.23 0.34 0.50 0.93 0.62 1.02	4 A7M F2 3 G5V	20150 20320 21024 20630 20794	3872 3899 3977 3969* 4000	- 9 6 -77 1 2 5	1089 1091 1095 118 1093 128 119

EK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT		PROPER MO- TION IN DEC SEC/CENT
1094 120 121 123 124	TAU ARI ALP PER OMI TAU XI TAU SIG PER	3 19 50.248 3 22 36.025 3 23 31.122 3 25 51.929 3 28 52.458	0.259 -0.461 0.391	+21 3 41.51 +49 46 37.51 + 8 56 43.31 + 9 39 0.14 +47 54 49.32	-2.16 -7.48
124 1097 125 127 128	KAP RET 17 ERT 5 TAU EPS ERI 45G HOR	3 28 57.297 3 29 25.459 3 29 32.691 3 31 47.874 3 31 51.675	0.056 0.134 -6.616	-63 1 18.68 - 5 9 23.51 +12 51 19.69 - 9 32 19.16 -50 27 34.74	0.97
1099 1100 1101 1102 1103	TAUS ERI 20 ERI 10 TAU TAU FOR 11 TAU	3 32 43.566 3 35 11.671 3 35 38.736 3 37 47.677 3 39 20.045	0.141 -1.580 0.139	-21 42 45.26 -17 32 44.49 + 0 19 35.19 -28 1 14.39 +25 15 11.05	-0.73 -48.04
131 133 135 137 136	DEL PER DEL FOR DEL ERT 24 ERI 17 TAU	3 41 12.492 3 41 17.559 3 42 5.790 3 43 17.210 3 43 26.773	0.042 -0.663 -0.019	+47 42 43.86 -32 0 51.48 - 9 50 37.53 - 1 14 16.18 +24 2 20.61	1.74
134 141 1104 140 146	NU PER RET RET 29 TAU TAU6 ERI GAM HYI	3 43 33.414 3 43 53.663 3 44 23.750 3 45 48.835 3 47 35.759	4.937 0.099 -1.192	+42 30 14.51 -64 52 56.31 + 5 58 33.27 -23 19 11.27 -74 18 46.30	-0.70
149	27 TAU GAM CAM ZET PER GAM ERI YI PER	3 47 43.873 3 47 47.942 3 52 37.121 3 56 54.467 3 57 24.161	0.438 0.050 0.384	+23 58 52.33 +71 15 37.42 +31 48 48.84 -13 34 33.23 +35 43 23.82	-3.75 -0.87 -10.98
			0.128 0.007 0.656	-61 28 3.92 - 1 36 57.29 + 5 55 25.67 +22 1 3.15 +50 17 15.42	-1.38
1117	nMI1 ERI MU PER	4 6 54.727 4 10 41.510 4 13 7.708 4 13 12.299 4 14 6.748	0.028 0.055 0.358	+47 38 59.77 - 6 53 57.10 +48 20 59.54 -42 21 10.72 -62 32 1.14	-2.77 8.28 -1.56 -20.77 4.95
159 15բ	GAM DOR	4 14 13.709 4 15 23.788 4 18 25.484 4 16 50.870 4 19 33.893	1.134 0.804 -0.191	+ 8 49 59.99 -51 32 47.72 +15 34 14.97 +34 30 36.54 -80 16 17.75	

TABLE 1 CONTINUED

MAGNITUDES AND V B-V U-B	COLORS S	SPECTRAL TYPE	HD NUMBER	GC NUMBER	DM NUMBER	FK4 NIIMBER
5.27 -0.08 -0.53 1.80 0.48 0.38 3.59 0.89 0.62 3.72 -0.08 -0.34 4.35 1.37 1.54	0.45 0.78 0.67 1.12 0.00 -0.10 1.07 1.81	B5VP F5IB G8III R8P K3III	20756 20902 21120 21364 21552	4007 4041 4070* 4107 4158	20 54 49 91 8 51 - 9 43 47 84	7 120 1 121 9 123
4.70 0.40 -0.06 4.73 -0.09 -0.28 4.11 1.12 1.03 3.73 0.89 0.57 5.68 1.10 0.00	0.01 -0.07 0.76 1.31 0.73 1.20	F5V R8V K0II K2V K3III	22001 21790 21754 22049 22231	4200 4185 4184 4244* 4251	-63 23 - 5 67 12 48 - 9 69 -50 107	4 1097 6 125 7 127
4.26       -0.10       -0.35         5.22       -0.14       -0.49         4.28       0.57       0.06         6.00       -0.02       0.00         6.15       0.06       0.16	0.01 -0.11 0.50 0.82	88V A1P F8V A0V A2V	22203 22470 22484 22789 22805	4258 4305 4313 4351 4382	-22 62 -17 69 0 57 -28 122 24 52	9 1100 2 1101 5 1102
3.02 -0.13 -0.50 4.99 -0.17 -0.59 3.53 0.92 0.68 5.24 -0.10 -0.38 3.70 -0.11 -0.41	-0.05 -0.20 0.73 1.22	R5III R5 K0IV B7V B6III	22928 23227 23249 23363 23302	4439 4450 4481	47 87 -32 143 -10 72 - 1 52 23 50	0 133 8 135 6 137
3.77 0.43 0.28 3.84 1.13 1.11 5.34 -0.12 -0.61 4.22 0.43 -0.02 3.24 1.63 1.91	0.41 0.67	F5II K0IV R3V F3V M1III	23230 23817 23466 23754 24512	4474 4517 4505 4547 4633	42 81 -65 26 5 53 -23 156 -74 27	3 141 9 1104 5 140
	0.02 0.03 0.14 0.18 0.16 0.25 1.26 2.26 0.15 0.15	A3IV B1IB MOIII	23850 23401 24398 25025 24912			9 138 6 144 1 149
4.55     1.62     1.95       5.27     -0.15     -0.55       3.90     0.03     0.06       4.36     1.07     0.95       4.28     0.00     -0.04	0.09 0.09 0.80 1.33 0.09 0.11	R5V A1V K0III	25422 25340 25490 25604 25642	4828 4862 4897		2 1111 1 151 5 1112
4.03       -0.03       -0.54         4.04       0.33       0.12         4.13       0.96       0.64         3.85       1.10       1.01         3.34       0.91       0.62	0.13 0.11 0.32 0.48 0.77 1.31 0.86 1.45	F2II G0IB	25940 26574 26630 26967 27256	50 <b>99</b> 5121	47 93 - 7 76 48 106 -42 142 -62 33	4 154 3 1117 5 155
4.29 -0.05 -0.54 4.24 0.31 0.00 3.64 0.99 0.81 4.92 0.94 0.69 5.68 0.84 0.53	0.06 0.00	K0III	26912 27290 27371 27348 28525	5179 5226 5235	8 65 -51 106 15 61 34 86 -80 11	6 157 2 159 0 158

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT	DECLINATION	
162 163 112n 1121 164	PEL TAU FTA RET XI ERI 43 ERI FPS TAU	4 21 32.868 4 21 37.556 4 22 29.011 4 23 8.019 4 27 12.735	1.336 -0.366 0.497	+17 29 14.64 -63 26 35.41 - 3 47 59.75 -34 4 18.74 +19 7 42.25	17.39 -5.40
167 1125 169 170 174	NEL CAE RHU TAU ALP TAU UPS2 ERI TAU TAU	4 30 5.922 4 32 29.017 4 34 32.456 4 34 36.984 4 40 48.093	0.688 0.449 =0.370	-45 0 16.57 +14 47 42.54 +16 27 44.02 -30 36 38.56 +22 54 43.77	-2.50
1130 1131 177 176 175	RET CAE 56 FRI MU MEN MU FRI 4 CAM	4 41 12.444 4 42 55.998 4 43 17.980 4 44 18.018 4 45 59.884	-0.034 0.302 0.071	-37 11 25.87 - 8 32 50.71 -70 58 31.06 - 3 17 51.22 +56 42 59.02	-0.15 3.38
1134 179 1135 178 181	PIS ORT PI4 ORT 97 TAU ALP CAM TOT AUR	4 48 32.106 4 49 55.538 4 49 58.067 4 51 39.199 4 55 25.637	-0.026 0.575 0.057	+ 6 55 14.07 + 5 33 54.73 +18 48 0.91 +66 18 14.76 +33 7 46.21	
1138 182 184 1146 187	FTA MEN RET CAM TOT TAU 11 ORI FTA2 PIC	4 55 51.991 5 1 16.568 5 1 39.515 5 3 11.724 5 4 20.590	-0.049 0.473	-74 58 28.13 +60 24 32.87 +21 33 25.09 +15 22 18.75 -49 36 35.38	
186 185 189 186 190	FPS LFP FTA AUR 7ET DOR RET ERI LAM ERI	5 4 26.602 5 4 49.684 5 5 5.826 5 6 40.067 5 7 59.759	0.260	-22 24 8.42 +41 12 12.88 -57 30 18.62 - 5 6 59.05 - 8 47 1.81	-6.69 11.60 -8.02
1142 192 1144 196 195	16 ORT MU AUR MU LEP THE DOR TAU ORT	5 8 0.296 5 11 46.971 5 11 51.088 5 13 46.300 5 16 26.360	0.417 -0.165 0.230 0.253 -0.139	+ 9 47 59.85 +38 27 27.08 -16 13 58.70 -67 12 44.70 - 6 52 9.40	-0.50 -7.63 -2.67 3.40 -0.80
197 1146 199 1147 201	OMI COL LAM LEP ZET PIC 22 ORI GAM ORI	5 16 37.047 5 18 28.065 5 18 46.679 5 20 32.126 5 23 50.515	0.180	-34 55 4.80 -13 12 2.02 -50 37 52.52 - 0 24 18.30 + 6 19 44.79	-33.90 -0.31 22.78 -0.13 -1.36
202 1151 207 214 202	RET TAU CHI AUR ALP LEP GAM MEN PHI1 ORI	5 24 46.358 5 31 9.821 5 31 40.200 5 32 49.689 5 33 30.082	0.001 -0.037 3.262	+28 35 18.82 +32 10 32.72 -17 50 18.61 -76 21 32.43 + 9 28 28.31	-17.49 -0.24 0.14 28.42 -0.34

TABLE 1 CONTINUED

	TTUDES AND	COLORS V-R V-I		HD NUMBER	GC NUMBER	DM NUMBE	FK4 R NUMBER
5.23 0 5.18 0 3.95 1	.98 0.83 .95 0.64 .07 0.08 .49 1.80 .02 0.88	1.17 2.0 0.73 1.2	G7III A1V 0 M1III	27697 28093 27861 28028 28305	5304 5333 5327 5349 5430*	-63 3 - 4 8 -34 16	12 162 24 163 18 1120 64 1121 40 164
4.65 0 0.86 1 3.81 0	.20 -0.78 .25 0.09 .53 1.89 .97 0.73 .12 -0.56		5 KSIII 4 KOIII	28873 28910 29139 29291 29763	5527 5558 5605 5614 5716	-30 19	
5.92 -0 5.53 -0 4.02 -0	.38 0.00 .11 -0.83 .13 -0.45 .15 -0.60 .25 0.12	-0.05 -0.1	F2V R2VE R9IV 9 R5IV	29992 30076 30612 30211 30121	5740 5768 5809 5 <b>79</b> 6 5811	-71 2 - 3 8	67 1130 29 1131 82 177 76 176 73 175
3.69 -0 5.10 0 4.30 0	.45 -0.01 .17 -0.80 .22 0.12 .01 -0.88 .53 1.76		7 R2III 4 A5 2 09.5IA	30652 30836 30780 30614 31398	5875* 5911* 5907 5924 6029	5 7 18 7 66 3	62 1134 45 179 43 1135 58 178 55 181
4.04 0 4.64 0 4.67 -0	.52 1.82 .90 0.63 .15 0.14 .07 -0.09 .48 1.88	0.69 1.1 0.17 0.2 0.05 0.0 1.19 2.1	6 A7V 3 A0P	32440 31910 32301 32549 33042	6078 6136 6158 6191 6234	6n 8 21 7 15 7	90 1138 56 182 51 184 32 1140 62 187
3.17 -0 4.71 0 2.80 0	.53 -0.06 .13 0.10	1.11 1.9 -0.03 -0.2 0.15 0.2 -0.07 -0.2	0 R3V F8V 3 A3III		6258 6274*		58 185 35 189 62 188
4.86 0 3.32 -0 4.82 1	.11 -0.38 .28 1.38	0.19 0.2 -0.01 -0.1 -0.02 -0.1	3 B9IIIP	33254 33641 33904 34649 34503	6375 6382 6444	9 7 38 10 -16 10 -67 4 - 7 10	63 192 72 1144 01 196
4.29 -0 5.43 0 4.72 -0	.51 0.01 .17 -0.80	-0.12 -0.4 -0.06 -0.2 -0.09 -0.3	0 R0.5IV F8III 3 R2IV	34642 34816 35072 35039 35468	6531 6553 6579	-65 22 -13 11 -50 17 - 0 9	27 1146 23 199 30 1147
4.76 0 2.58 0 5.18 1	.32 -0.44 .21 0.21 .13 1.19	-0.01 -0.0 0.37 0.6 0.22 0.4	4 B5IAB 3 F0IB K4III	35497 36371 36673 37763 36822	6849 6875 6966	32 10	24 1151 66 207 33 214

FK4 NUMBER	NAME		PROPER MO- TION IN RA SEC/CENT	DECLINATION DEG MIN SEC	
210 211 215 217 216	FPS ORI ZET TAU ALP COL GAM LEP OMI AUR	5 34 59.644 5 36 12.519 5 38 46.718 5 43 27.692 5 44 2.340	0.011 0.014 -2.127	- 1 12 58.13 +21 7 45.19 -34 5 10.19 -22 27 19.20 +49 49 3.16	-0.23 -2.17 -2.74 -37.19 0.04
1154 219 220 1156 223	DEL DOR JET LEP KAP ORI GAM PIC RET COL	5 44 43.785 5 45 51.983 5 46 37.002 5 49 23.388 5 50 6.734	-0.164 -0.025 0.917	-65 44 40.32 -14 49 47.83 - 9 40 37.76 -56 10 20.16 -35 46 35.76	0.70 -0.33 -0.49 -7.39 40.22
222 1158 1157 226 1160	DEL LEP 136 TAH XI AUR FTA LEP GAM COL	5 50 17.280 5 51 49.056 5 52 49.983 5 55 18.606 5 56 41.091	0.040 -0.138 -0.341	-20 52 48.80 +27 36 28.58 +55 42 11.88 -14 10 16.12 -35 17 6.38	-65.06 -1.37 2.19 13.61 0.81
225 1161 225 1163 230	DEL AUR 60 ORI ETA COL 1 GEM 66 ORI	5 57 32.984 5 57 35.454 5 58 24.648 6 2 39.611 6 3 42.187	-0.099 0.144 -0.044	+54 17 4.87 + 0 33 6.75 -42 48 57.29 +23 15 57.61 + 4 9 40.16	
232 1166 235 233 239	NU ORI NU DOR DEL PIC 36 CAM ALP MEN	6 6 12.028 6 8 53.554 6 9 49.795 6 10 26.233 6 10 57.501	-0.933 -0.095 0.148	+14 46 21.33 -68 50 18.30 -54 57 46.16 +65 43 31.61 -74 44 43.75	
1168 1169 238 237 1170	KAP AUR 74 ORI KAP COL 2 LYN 7 MON	6 13 50.883 6 15 5.697 6 15 41.776 6 17 30.370 6 18 33.351	0.555 -0.109 -0.071	+29 30 29.77 +12 16 48.31 -35 7 54.47 +59 1 17.72 - 7 48 42.57	18.53 8.38 2.48
240 243 244 245 246	PET CMA RET CMA EPS MON ALP CAR 10 MON	6 19 23.443 6 21 38.480 6 22 29.717 6 23 25.152 6 26 46.385	-0.088 -0.134 0.291		-0.37 1.03 2.21
1173 1174 249 247 251	NU GEM 13 MON XI2 CMA A LYN GAM GEM	6 27 32.247 6 31 36.312 6 34 2.939 6 35 29.981 6 36 19.508	-0.017 0.026 -2.861	+20 13 42.90 + 7 21 6.11 -22 56 41.63 +61 30 15.43 +16 25 15.71	-1.71 -0.77 1.32 -27.67 -4.38
252 264 254 256 255	NU PUP ZET MEN EPS GEM XI GEM PSI5 AUR	6 37 1.527 6 42 4.109 6 42 27.321 6 43 56.510 6 45 0.603	-0.707 -0.032 -0.795	-43 10 27.15 -80 47 24.21 +25 9 22.35 +12 55 21.60 +43 36 10.41	-0.52 5.69 -1.47 -19.37 16.36

TABLE 1 CONTINUED

V	AGNITU B-V	DES AN	D COLO V-R	RS V-I	SPECTRAL TYPE	HD NUMBFR	GC NUMBER	DM NUMBE	FK4 R NHMBER
2.98		-0.73 -0.45 -0.01	0.00	-0.09 -0.11	B2IIIP B8VE	37128 37202 37795 38393 38104		- 1 9 21 9 -34 23 -22 12 49 13	08 211 75 215 11 217
4.34 3.55 2.06 4.50 3.11	0.10 -0.18 1.10	0.06 -1.03 0.99		0.16 -0.21 1.43	A6IV A3V R0.5IA K1III K2III	39014 38678 38771 39523 39425	7246 7247* 7264 7353 7364	-65 4 -14 12 - 9 12 -56 9 -35 25	32 219 35 220 46 1156
4.95 3.71	-0.02 0.05	0.04 0.10 -0.01	0.79 0.04 0.09 0.31 0.07	0.05	G8III A0III A2P F0IV R3IV	39364 39357 39283 40136 40494	7362 7389 7404 7492 7536	-20 12 27 8 55 10 -14 12 -35 26	99 1158 27 1157 86 226
3.71 5.21 3.95 4.16 5.62	1.00 0.01 1.14 0.83 1.05	0.86 0.01 1.08 0.52 0.76	0.75 0.82 0.68	1.26 1.40 1.13	KOIII KOIII KOIII GG4	40035 40446 40808 41116 41380	7521 7556 7591 7676 7704	54 9 0 12 -42 22 23 11 4 11	66 229 70 1163
5.05	-0.16 -0.08 -0.25 1.34 0.72	-0.20 -1.00 1.44	0.05	-0.22	B3V B8V B1 K2II G5V	41753 43107 42933 41927 43834	7772 7886 7898 7856 7962	-54 96 65 5	74 1166
		-0.02 0.84 0.03	0.78 0.73 0.08		VSV	43039 43386 43785 43378 44112	8068	59 9	34 1169 00 238 59 237
1.98 4.29 .0.72	-0.19 -0.23 0.20 0.16 -0.19	-0.99 0.10 0.04	0.11	-0.35 0.31	R1II A5IV F0IB	44402 44743 44769 45348 45546	8223 8240 8302	-30 303 -17 146 4 123 -52 99 - 4 153	57 243 36 244 14 245
4.48 4.54 5.94	-0.13 0.01 -0.03 0.90 0.00	+0.24 +0.04 0.52		0.13	AOIB AOV GG7	45542 46300 46933 46480 47105	8506 8577 8582	61 89	37 1174 58 249 33 247
5.63 2.99 3.35	-0.11 0.20 1.41 0.43 0.55	0.13 1.47 0.05	0.95	-0.07 1.57 0.63	A4IV G8IB	4767n 50506 48329 48737 48682	8869 8786 8823	-43 257 -80 19 25 140 13 139 43 159	264 264 264 266 256

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT		
1177 1176 258 262 1180	16 MON PSI6 AUR 18 MON ALP PIC KAP CMA	6 45 13.845 6 45 49.868 6 46 36.504 6 47 56.725 6 48 56.602	-0.021 -0.142 -0.987	+ 8 36 49.40 +48 48 59.63 + 2 26 22.37 -61 54 55.37 -32 28 47.97	0.70 -1.31
263 259 261 267 266	TAU PUP 43 CAM THE GEM IOT VOL THE CMA	6 49 20.398 6 51 7.467 6 51 12.455 6 51 43.751 6 53 4.422	0.112 -0.010 0.034	-50 35 8.01 +68 55 6.70 +33 59 29.69 -70 56 1.88 -12 0 27.32	
1183 1182 270 271 273	SIG CMA OME GEM OMIZ CMA GAM CMA DEL CMA	7 0 45.730 7 0 57.052 7 2 1.281 7 2 40.282 7 7 24.866	-0.050 -0.051 -0.041	-27 53 58.66 +24 15 3.45 -23 47 50.60 -15 35 48.45 -26 21 15.21	
1186 274 1187 278 281	20 MON 63 AUR PEL MON PI PUP DEL VOL	7 9 2.101 7 10 0.358 7 10 38.274 7 16 17.650 7 16 50.800	0.379 -0.030 -0.103	- 4 11 55.01 +39 21 40.07 - 0 27 6.93 -37 3 13.10 -67 54 48.35	21.37 0.09 0.47 0.35 -0.38
1191 283 282 285 1193	AS AUR FTA CMA TOT GEM BET CMI 6 CMI	7 22 28.867 7 23 8.677 7 24 14.216 7 25 50.933 7 28 27.632	-0.065 -0.915 -0.366	+40 43 11.88 -29 15 19.80 +27 50 49.34 + 8 20 19.68 +12 3 26.48	-2.68 0.25 -8.82 -4.03 -2.07
289 293 292	HPS GEM 25 MON ALP MON 24 LYN RET GEM	7 34 26.679 7 36 5.042 7 40 5.988 7 40 59.019 7 43 50.914	-0.493 -0.523 -0.475	+26 57 1.13 - 4 3 23.16 - 9 29 39.30 +58 46 5.69 +28 5 7.31	1.37 -2.41 -5.15
1200 1202 1201 1205 1207	A1 GEM 4 PUP 11 CMI 7ET CMI PHI GEM	7 44 44.121 7 44 50.485 7 44 56.951 7 50 27.274 7 52 1.761	-0.137 -0.192 -0.132	+18 34 10.94 -14 30 16.43 +10 49 40.35 + 1 49 44.90 +26 49 44.72	0.31 -2.37
303 304 302 305 306	CHI CAR 27 MON 53 CAM CHI GEM ZET PUP	7 56 10.078 7 58 32.168 7 59 39.940 8 2 2.741 8 2 44.387	-0.394 -0.584	-52 55 2.40 - 3 36 47.74 +60 23 29.83 +27 51 46.01 -39 56 5.56	2.51 -0.76 -2.23 -4.37 1.10
307 311 312 1217 314	27 LYN 20 PUP RET CNC CHI CNC 31 LYN	8 6 39.474 8 12 13.710 8 15 12.852 8 18 36.494 8 21 11.822	-0.138 -0.305 -0.131	+51 34 38.09 -15 42 54.23 + 9 15 37.82 +27 17 47.35 +43 15 58.77	-0.70 -0.70 -5.16 -38.18 -10.04

TABLE 1 CONTINUED

MAGNITU V B-V	DES AND		S S	SPECTRAL TYPE	HD NUMBER	GC NUMBER		M BER 1	FK4
5.92 -0.18 5.21 1.13 4.46 1.11 3.26 0.22 3.94 -0.24	1.04		1.33	A5V	48977 48781 49293 50241 50013	8858	8 : 48 : -61 -32 :	1436 1397 720	1177 1176 258 262 1180
2.92 1.20 5.12 -0.13 3.60 0.11 5.39 -0.12 4.06 1.43	0.00 0.13 -0.37	0.11	0.18	KOIII B7IV A3III B6IV K3III	50310 49340 50019 51557 50778	8969 8957 8989 9057 9051	-50 69 34 -70 -11	394 1481 572	263 259 261 267 266
3.46 1.74 5.17 0.94 3.03 -0.09 4.10 -0.12 1.84 0.67	0.68 -0.82 -0.47	-0.01	-0.08	MOIAB G5II R3IA R8II F8IA	52877 52497 53138 53244 54605	9276 9263 9307 9320 9443	-27 24 -23 -15 -26	1502 4797 1625	1183 1182 270 271 273
4.91 1.02 4.91 1.44 4.14 -0.01 2.70 1.63 3.97 0.78	1.74 0.01 1.24	0.78 0.08 1.24	1.31 0.09 2.15	KOIII K4II AOIV K5III F8II	54810 54716 55185 56855 57623	9477 9490 9518 9706 9747	39 - 0 -36 -67	1882 1636 3489	1186 274 1187 278 281
5.17 1.24 2.44 -0.07 3.78 1.03 2.89 -0.10 4.53 1.28	-0.73 0.85	0.07 0.76 0.03 0.88	1.27	KOIII B8V KOIII	57669 58350 58207 58715 59294	9850 9886 9897 9947 10024	-29 E	1385	1191 283 282 285 1193
4.06 1.54 5.13 0.44 3.93 1.02 4.98 0.09 1.15 1.00	0.09 0.88 0.08			ABIII	60522 61064 61935 61497 62509		- 3 : - 9 : 59 :		
4.88 1.45 5.04 0.33 5.30 0.01 5.14 -0.13 4.96 0.10	-0.02 -0.47	0.13		Δ3 Δ1V B8II	62832	10456 10469 10463 10622 10653	-14 2 11 1 2 2	1670	1200 1202 1201 1205 1207
3.46 -0.20 4.93 1.20 6.00 0.14 4.94 1.12 2.25 -0.28	1.21 0.03 1.09	-0.06	-0.27		65695 65339	10912	-52 1 - 3 2 60 1 28 1 -39 3	2157 1105 1532	303 304 302 305 306
4.98 1.08 3.52 1.48 5.13 0.46	1.78 -0.05	0.11 1.13 1.19		G5II K4III F6V	68752 69267 69897	11018 11184 11254* 11348 11401	-15 2 9 1 27 1	2324 1917	307 311 312 1217 314

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT	DECLINATION DEG MIN SEC	
315 319 1222 321 1223	FPS CAR BET VOL 29 CNC FTA CNC DEL HYA	8 22 1.371 8 25 28.837 8 27 17.021 8 31 19.308 8 36 23.148	-0.534 -0.101 -0.322	-59 25 54.72 -66 3 23.93 +14 17 28.47 +20 31 25.23 + 5 47 17.90	-16.10
1224 325 1225 1227 1228	SIG HYA 6 HYA 34 LYN 0MI VEL GAM CNC	8 37 30.183 8 38 53.173 8 39 21.860 8 39 36.345 8 41 53.913	-0.606 0.224 -0.221	+ 3 25 35.56 -12 23 23.10 +45 55 9.50 -52 50 10.23 +21 33 20.77	-0.57 8.74 1.91
331 327 326 328 1230	FTA CHA ALP PYX DEL CNC IOT1 CNC 14 HYA	8 42 10.906 8 42 37.582 8 43 19.340 8 45 14.824 8 48 9.328	-0.143 -0.121 -0.180	-78 52 36.72 -33 5 57.01 +18 14 36.36 +28 50 55.38 - 3 21 11.36	0.87 -23.32 -4.49
332 334 338 343 1238	GAM PYX ZET HYA RHO UMA ALP VOL KAP CNC	8 49 30.740 8 54 7.520 9 0 24.110 9 2 4.362 9 6 26.863	-0.679 -0.357 0.067	-27 37 12.69 + 6 2 15.76 +67 43 28.41 -66 18 0.25 +10 45 56.25	1.05 1.64 -10.17
345 1239 346 348 347	LAM VEL XI CNC 36 LYN BET CAR THE HYA	9 7 6.715 9 7 58.853 9 12 14.338 9 12 56.682 9 13 6.954	0.021 -0.259 -2.887	-43 20 6.25 +22 8 36.05 +43 19 3.68 -69 37 5.41 + 2 24 58.59	-0.02 -3.58 10.30
352 1243 353	, ,	9 16 26.866 9 19 35.777 9 20 25.758 9 21 22.184 9 24 11.987	-1.805 -0.092 -0.094	-59 10 27.00 +34 29 41.50 -25 51 45.53 -54 54 27.67 - 5 0 47.92	1.35 -1.07 0.82
354 356 355 361 1246	ALP HYA FPS ANT 23 UMA N VEL XI LEO	9 26 24.437 9 28 15.175 9 29 39.131 9 30 29.487 9 30 39.174	-0.205 1.609 -0.420	+63 10 4.28 -56 55 41.15	-0.71 2.54 -0.06
362 357 360 1250 364	H CAR 24 UMA 10 LMI TOT HYA KAP HYA	9 31 26.184 9 32 23.102 9 32 45.402 9 38 37.800 9 39 9.247	-1.229 0.051 0.305	+36 30 17.60	7.63 -2.64 -6.88
365 1251 366 367 368	OMI LEO 15 LEO THE ANT FPS LEO UPS UMA	9 39 52.221 9 42 9.012 9 43 7.811 9 44 29.462 9 49 17.698	-0.143 -0.373 -0.330	-27 39 32.69	-10.50 2.99 -1.50

TABLE 1 CONTINUED

· M	AGNITU B-V	DES AND	COLO V-R	RS V-I	SPECTRAL	HD NUMBER	GC NUMBER		DM MBFR	FK4 NUMBER
						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,,		111111111111111111111111111111111111111
1.88	1.31	0.27			VOTT	71129	141163	Ea	107	7.5
3.76					KSIII KOII	71129	11463		1032	
5.90					A5V	71555	11567 11584	-65	1899	
5.33					K3III	72292	11687		2109	
4.14			0.04	0.04		73262	11823		2001	
		0,01	0.01	0.04	HIV	13267	11020	6	2001	1223
4.44			0.87	1.43		73471	11856	3	2026	1224
4.97					K4III	73840	11908	-11		
5.37					NI85	73593	11903		1422	
		-0.66	0 0=		B3IV	74195	11943		1583	
4.67	0.01	0.02	0.07	0.06	<b>A1V</b>	7419A	11982	21	1895	1228
	-0.10				B9IV	75416	12063	-78	372	331
		-0.88		-0.23		74575	12018	-32	5651	
		0.99	0.78			74442	12022	18	2027	326
	1.00	-	0.74	1.23		74739	12083	29	1824	328
5.30	-0.09	-0.34			AP	75333	12172	- 2	2699	1230
4.01	1.27	1.39	0.95	1.61	K4III	75691	12216	-27	5986	332
3.11	1.00	0.79	0.72	1.21	GBIII	76294	12327		2060	
4.76	1.56	1.88	1.44	2.70	M3III	76827	12447	68	551	
4.00	0.15	0.12			A5V	78045	12532		1065	
5.23	-0.11	-0.43			AP	78316	12596	11	1984	1238
2.24	1.69	1.81	1.24	2.19	K5IB	78647	12623	-42	4990	345
	0.97				KOIII	78515	12635		2061	
5.32	-0.14	-0.48			B8IIIP	7915A	12716		1893	
1.68	0.00	0.02			AOIII	80007	12764		1023	
3.88	-0.06	-0.13	0.01	-0.05	AOV	79469	12743*		2167	
2.25	0.18	0.11			FOIB	80404	12831	-58	1465	351
3.14	1.55	1.91	1.21	2.12		80493	12880		1979	
4.72	1.06	2.03	1.39	2.47	MIIII	80874	12916		7114	
	-0.20				RZIV	81188	12938		2219	
5.58	1.53	1.82			K5III	81420	12992	- 4	2616	1245
1.98	1.44	1.73	1.04	1.81	кЗІІІ	81797	13044	<b>a</b> 8	2680	354
4.50	1.44	1.68		1.77	MOIII	82150	13091		5724	
3.66	0.33	0.10	0.34	0.52	FOIV	81937			845	
3.12	1.55	1.88				82668	13160		2270	
4.97	1.05	0.86			KOIII	82395	13149		2053	
5.46	1.56	1.74			K2	83095	13205	-72	835	3/2
4.55	0.77		0.64	1.06	G2IV	82210		70	565	
	1.05		0.70		KIIII	83240	13203		2004	
3.88	1.32	1.47		1.64	K3III	83618	13341		2231	
		-0.56			R5V	83754	13354		2917	
3.48	0.53	0.20	0.39	0.63	F6II	83808	13366	1.0	2047	7/5
5.62	0.12	0.09		V.03	A3V	84107	13406		2044	
4.78	0.51	0.34	0.48	0.79	F7V	84367	13425		6881	
2.97	0.80	0.46	0.66	1.06		84441	13443		2129	
3.79	0.30	0.09	0.34	0.50		84999	13540		1268	
			-					0 )	- to 20 ()	000

FK4 NUMBER	NAME	RIGHT ASCENSION HRS MIN SEC	PROPER MO* TION IN RA SEC/CENT	DECLINATION	PROPER MO- TION IN DEC SEC/CENT
37n 371 375 374 377	6 SEX MU LEO PHI VEL 19 LMI ETA ANT	9 50 1.418 9 51 24.065 9 56 1.063 9 56 13.143 9 57 50.305	-1.598 -0.135 -1.055	- 4 7 49.04 +26 7 14.24 -54 27 10.87 +41 10 14.10 -35 46 32.42	-5.96 0.46 -2.89
376 378 1258 1261 379	12 SEX PI LEO 20 LMI UPS2 HYA FTA LEO	9 58 28.369 9 58 56.732 9 59 37.841 10 3 57.262 10 6 1.519	-0.215 -4.139 -0.289	+ 3 30 0.11 + 8 9 35.80 +32 2 32.42 -12 56 52.25 +16 52 48.83	-2.64 -43.24 0.96
380 381 385 384 383	ALP LEO LAM HYA OME CAR ZET LEO LAM UMA	10 7 5.674 10 9 24.995 10 13 10.123 10 15 21.439 10 15 39.265	-1.408 -0.629 0.134	+12 5 6.25 -12 14 5.93 -69 55 6.44 +23 32 14.65 +43 2 5.22	0.30
1263 1265 386 388 389	FPS SEX 59G ANT MU UMA 25 SEX MU HYA	10 16 26.170 10 17 1.448 10 20 54.246 10 22 13.641 10 24 55.674	-0.116 -0.739 -0.355	- 7 56 54.94 -28 52 17.58 +41 37 14.66 - 3 57 8.30 -16 42 48.03	0.85 3.02
392 1270 394 396 399	ALP ANT DEL SEX 36 UMA RHO LEO 44 HYA	10 26 3.077 10 28 15.516 10 29 5.999 10 31 32.862 10 32 52.249	-0.344 -2.134 -0.059	-30 56 42.43 - 2 36 56.97 +56 6 14.85 + 9 25 49.90 -23 37 15.87	-1.80 -3.46 -0.61
404	37 UMA GAM CHA 37 LMI 33 SEX 78G ANT	10 33 37.549 10 35 11.829 10 37 22.359 10 40 10.882 10 41 36.275	-1.310 0.007 -0.933	+57 12 24.25 -78 28 58.99 +32 6 4.55 - 1 36 54.03 -32 35 22.91	1.62 0.17 -12.49
406 405 407 411 409	THE CAR 41 LMI 42 LMI DEL2 CHA 53 LEO	10 42 5.783 10 42 6.760 10 44 31.982 10 45 34.271 10 47 59.754	-0.844 -0.188 -2.135	-64 16 6.07 +23 18 51.89 +30 48 32.61 -80 24 48.56 +10 40 21.18	0.44 -4.16 0.42
410 1281 412 414 1282	NU HYA 41 SEX 46 LMI TOT ANT 47 UMA	10 48 26.319 10 49 5.718 10 51 58.356 10 55 35.744 10 58 7.569	-0.064 0.691 0.639	-16 4 3.78 - 8 46 12.94 +34 20 40.45 -37 0 30.61 +40 33 31.36	-1.82 -28.33 -13.29
1283 1284 416 420 421	ALP CRT 58 LEO BET UMA PSI UMA BET CRT	10 58 36.164 10 59 19.248 11 0 24.127 11 8 19.121 11 10 28.498	0.081 0.978 -0.636	-18 10 14.49 + 3 44 47.84 +56 30 40.77 +44 37 44.28 -22 41 40.30	-2.00 2.90 -3.14

TABLE 1 CONTINUED

MAGNIT	TUDES AND		S V-I	TYPE	HD NUMBER	GC NUMBER		BER	FK4 NIIMBER
6.00 0.1 3.89 1.2 3.54 -0.0 5.12 0.4 5.22 0.3	0.00	0.91	1.49	A5III K2III R5II F5V F0V	85364 85503 86440 86146 86629	13558 13590 13711 13700 13741	26 -53 41	2794 2019 3075 2033 6050	371 375 374
6.69 0.2 4.70 1.6 5.36 0.6 4.59 -0.0 3.53 -0.0	50 1.92 55 0.25 09 -0.27		2.49 -0.09 0.13	A5 M2III G4V R8V A0IB	86611 86663 86728 87504 87737		8 32 -12	2276 2301 1964 3073 2171	378 1258 1261
1.36 -0.1 3.61 1.0 3.31 -0.0 3.44 0.3 3.45 0.0	0.91 08 -0.32 32 0.21		-0.09 1.23 0.50 0.08	R7V K0III R8IV F0III A2IV	87901 88284 89080 89025 89021	13926* 13982 14074 14107 14113*	-11 -69 24	2149 2820 1178 2209 2005	381 385 384
5.24 0.3 5.34 0.2 3.03 1.5 5.96 -0.1 3.81 1.4	0.00 58 1.86 10 -0.16	1.27	2.24	F1III R9 MOIII AOP K4III	89254 89353 89758 90044 90432	14129 14144 14232 14268 14326	-28 42 - 3	3001 8070 2115 2911 3052	1265 386 388
4.24 1.4 5.22 -0.0 4.83 0.5 3.85 -0.1 5.07 1.6	05 -0.12 52 0.00 14 -0.95	0.48 -0.04		MOIII B9 F8V B1IB K4III	90610 90882 90839 91316 91550	14352 14403 14427 14487* 14524	- 2 56 10	8465 3155 1459 2166 2946	1270 394 396
	88 0.59	0.66	1.05	F1V MOIII G3II K1IV A0	91480 92305 92125 92588 92845	14527 14604 14624 14732	-77 32 - 0	1277 622 2061 2364 7572	401 1275 404
2.76 -0.2 5.04 0.0 5.35 -0.0 4.44 -0.2 5.25 0.0	0.05 06 -0.15 20 -0.69			09.5V A2V B9V B3V A2V	93152	14755 14740 14798 14863 14889	23 31 -79	1899 2253 2180 556 2283	405 407 411
3.11 1.2 5.78 0.1 3.81 1.0 4.59 1.0 5.05 0.6	0.12 05 0.91 02 0.85	0.91 0.83 0.75	1.55 1.37 1.28	K3III A2 K0III G5III G0V	93813 93903 94264 94890 95128	15047	- 8 34 -36	3138 3018 2172 6808 2147	1281 412 414
4.07 1.0 4.84 1.1 2.38 -0.0 3.00 1.1 4.47 0.0	7 1.12 01 -0.02 14 1.11	0.78 0.08 0.82 0.09	1.33 0.04 1.41 0.12	KOIII K1III A1V K1III A2III		15145	57 45	3273 2407 1302 1897 3095	1284 416 420

FK4 NUMBER	NAME	RIGHT ASCENSION HRS MIN SEC	TION IN RA	DECLINATION DEG MIN SEC	PROPER MO- TION IN DEC SEC/CENT
422 423 1292 1293 426	NEL LEO THE LEO PHI LEO 55 UMA NEL CRT	11 12 49.985 11 12 58.876 11 15 26.411 11 17 49.625 11 18 8.311	-0.421 -0.747 -0.492	+20 39 19.40 +15 33 39.38 - 3 31 12.80 +38 19 2.47 -14 38 54.56	-8.35 -4.14
427 1296 1297 433 434	SIG LEO 83 LEO TAU LEO LAM DRA XI HYA	11 19 53.908 11 25 32.399 11 26 42.143 11 29 59.726 11 31 49.067	-4.833 0.112 -0.739	+ 6 9 39.82 + 3 8 38.61 + 2 59 18.71 +69 27 49.18 -31 43 28.72	17.73 -1.69 -2.02
436 435 1299 437 438	LAM CEN C2 CEN THE CRT UPS LEO PI CHA	11 34 39.952 11 34 45.417 11 35 27.726 11 35 43.128 11 36 15.499	0.303 -0.452 0.009	-62 53 12.56 -47 30 30.36 - 9 40 9.89 - 0 41 28.17 -75 45 48.44	-5.37 0.32
439 1300 1301 442 1302	OMI HYA 61 UMA 7ET CRT 1 AM MUS NU VIR	11 39 1.002 11 39 47.333 11 43 32.620 11 44 27.882 11 44 37.503	-0.104 0.202 -1.620	-34 36 41.41 +34 20 13.89 -18 13 2.10 -66 35 43.99 + 6 39 50.05	-3.60
441 1304 444 445 446	CHI UMA 93 LEO BET LEO BET VIR B CEN	11 44 47.255 11 46 44.880 11 47 50.138 11 49 26.639 11 49 56.292	-1.069 -3.426 4.935	+47 54 44.97 +20 21 8.41 +14 42 22.45 + 1 54 0.02 -45 2 23.90	-0.81 -11.88
447 1308 1309 1311 450		11 52 34.436 11 54 26.480 11 54 47.368 11 59 38.542 12 3 59.148	0.062 -0.394 -0.014	+53 49 41.41 +15 46 49.09 -17 1 1.82 + 6 44 53.19 + 8 51 58.44	-0.40 -1.09 -3.40
452 453 1313 455 456	nEL CEN EPS CRV 3 COM DEL CRU DEL UMA	12 7 6.452 12 8 53.208 12 9 18.219 12 13 51.644 12 14 14.620	-0.525 -0.135 -0.496	-22 29 10.61 +16 56 33.63 -58 36 55.28	1.00 -0.62 -1.02
457 459 460 1317 1318	GAM CRV RET CHA FTA VIR 16 VIR 12 COM		-1.544 -0.434 -1.956	-79 10 44.24 - 0 32 0.70 + 3 26 45.88	1.46 -2.22 -6.96
461 464 466 467 468	20 CCM	12 26 44.058 12 28 30.901 12 28 50.354	-0.291 0.173 -0.832	-50 5 52.50 +21 1 43.66 +58 32 15.41	-2.26 -3.76 8.83

TABLE 1 CONTINUED

MAGNITUDES AND V 8-V U-B	COLORS S V-R V-I	PECTRAL TYPE	HD NUMBER	GC NUMBER		M BER I	FK4 NUMBER
2.56 0.12 0.10 3.34 0.00 0.00 4.46 0.21 0.12 4.77 0.10 0.04 3.56 1.12 0.98	0.16 0.19 0.08 0.05 0.27 0.38 0.14 0.16 0.83 1.43	A4V A2V A7IV A2V G8III	976n3 97633 98058 98353 98430	15438 15441 15511 15558 15567	16 - 2 38	229A 2234 3315 2225 3345	422 423 1292 1293 426
4.04 -0.05 -0.09 6.50 0.79 0.49 4.95 1.01 0.78 3.83 1.61 1.97 3.54 0.95 0.71	0.01 -0.06 1.32 2.31 0.70 1.19	B9V DKO G8II MOIII G7III	98664 99491 99648 100029	15600 15705 15729 15799 15845	3 3 70	2437 2502 2504 665 9083	427 1296 1297 433 434
3.13 -0.05 -0.16 5.24 0.26 0.10 4.70 -0.08 -0.18 4.30 1.00 0.75 5.64 0.36 -0.03	0.03 -0.04 0.73 1.25	89111 F2 B9V G9111 F2111	100841 100825 100889 100920 101132	15899 15901 15921 15927 15946	-46 - 8 - 0	2127 7205 3202 2458 744	436 435 1299 437 438
4.70       -0.08       -0.20         4.33       0.73       0.26         4.73       0.98       0.74         3.63       0.16       0.12         4.03       1.52       1.80	0.02 -0.03 0.59 0.95 0.71 1.19 1.23 2.25	88 68V 68III A5V M1III	101431 101501 102070 102249 102212	16019 16035 16112 16131 16135	35 -17 -66	7610 2270 3460 1640 2479	439 1300 1301 442 1302
3.70 1.19 1.15 4.54 0.55 0.28 2.14 0.09 0.07 3.61 0.55 0.10 4.46 1.29 1.46	0.87 1.48 0.51 0.87 0.06 0.07 0.46 0.74 0.94 1.61	KOIII G5III A3V F8V K4III	102224 102509 102647 102870 102964	16137 16173 16189* 16215* 16226	21 15 2	1966 2358 2383 2489 2614	441 1304 444 445 446
2.44 0.00 0.01 5.50 0.11 0.11 5.17 -0.03 -0.06 4.65 0.13 0.11 4.12 0.98 0.63	0.05 0.02 0.16 0.20 0.74 1.23	A0V A3V A0V A4V G8III	103287 103578 103632 104321 104979	16268* 16311 16319 16425 16512	16 -16 7	1475 2319 3358 2502 2583	
2.58 -0.11 -0.89 2.99 1.33 1.48 6.37 0.08 0.11 2.82 -0.24 -0.90 3.31 0.08 0.07	0.04 -0.08 0.93 1.58 0.07 0.06		105435 105707 105778 106490 106591	16584 16618 16724 16736*	-21 17 -58		453 1313 455
4.95 1.17 1.15	0.08 0.07 0.88 1.49 0.47 0.79		106625 106911 107259 107328 107700	16740* 16775 16183 16828 16873	-78 0 4	741 2926	
5.01 0.96 0.73 3.92 -0.20 -0.79 5.72 0.06 0.09 5.32 0.20 0.14 1.66 1.61 1.76	-0.11 -0.30	G8III B2V A3V A5 M3II	108225 108483 108765 108844 108903	16948 16990 17026 17038 17052	-49 21 59	2521 7115 2424 1444 5272	461 464 466 467 468

FK4 NUMBER	NAME	RIGHT ASCENSION HRS MIN SEC	TION IN RA		PROPER MO- TION IN DEC SEC/CENT
469 472 470 471 1324	GAM MUS KAP DRA BET CVN RET CRV 25 VIR	12 31 0.844 12 32 27.918 12 32 36.277 12 33 7.354 12 35 33.028	-1.156 -6.296 0.006	-72 0 1.96 +69 55 13.15 +41 29 15.57 -23 15 50.97 - 5 41 59.21	0.85 28.72
474 475 1326 1328 481	ALP MUS CHI VIR RHO VIR 32 VIR RET CRU	12 35 44.111 12 38 0.294 12 40 40.127 12 44 24.231 12 46 18.454	-0.528 0.566 -0.738	-69 0 12.27 - 7 51 49.47 +10 22 3.54 + 7 48 15.55 -59 33 27.79	-3.11 -9.46
1330 1332 1335 484 486	35 VIR 31 COM PSI VIR DEL VIR 8 DRA		-0.101 -0.188 -3.144	+ 3 42 12.56 +27 40 15.62 - 9 24 31.95 + 3 31 39.27 +65 34 6.13	-1.33 -2.00
487 488 1337 489 492	PEL MUS FPS VIR 14 CVN XI2 CEN RET COM	13 0 35.854 13 0 58.853 13 4 37.158 13 5 30.009 13 10 45.201	-1.867	-71 25 11.50 +11 5 16.22 +35 55 37.11 -49 46 40.64 +27 59 58.00	-3.10 1.71 1.70 -1.23 87.81
493 1344 494 1345 495	ETA MUS SIG VIR 20 CVN 61 VIR GAM HYA	13 13 36.171 13 16 23.465 13 16 28.031 13 17 8.728 13 17 36.753	-0.584 -0.048 -1.114 -7.542 0.475	-67 46 4.29 + 5 35 45.40 +40 41 54.91 -18 10 41.53 -23 2 43.17	-1.68 1.12 1.70 -107.25 -4.90
496 1348 1349 1351 501	TOT CEN 68 VIR 70 VIR 78 VIR 7ET VIR		-0.917 -1.634 0.281	+ 3 46 54.18	-2.51 -58.16 -2.87
	A2 VIR	13 38 21.395 13 40 20.975 13 43 11.883	-0.246 -0.672 0.063	- 5 16 27.99 -53 20 41.38 - 8 34 56.81 -16 3 32.17 -32 55 22.52	-1.74 3.46 -1.09
509 511 513 512 515	ETA BOO	13 46 35.712 13 50 43.769 13 53 32.439 13 54 2.005 13 57 10.057	-0.056 -0.446 -0.565	+49 25 57.51 +64 50 29.16 +18 31 2.82 -47 10 14.79 -24 51 20.25	-0.63 -36.30 -4.40
519 520	PI HYA	14 0 25.360 14 3 44.208 14 4 59.978 14 5 15.810 14 8 55.040	-0.902 0.319 -4.287	+ 1 39 36.28 +64 29 24.58 -26 34 2.61 -36 15 9.32 +77 39 36.80	1.46 -14.40 -52.35

TABLE 1 CONTINUED

MAGNITUDES AND V B-V U-B	COLORS SI	PECTRAL TYPE	HD NUMBFR	GC NUMBER	DM NUMBER A	FK4 HIMBER
3.87 -0.17 -0.61 3.87 -0.13 -0.56 4.27 0.58 0.05 2.67 0.89 0.61 5.86 0.70 0.08	0.05 -0.03 0.54 0.85 0.61 1.05	B5V B7P G0V G5II	109026 109387 109358 109379 109704	17086 17126 17127 17133 17180	-71 1336 70 703 42 2321 -22 3401 - 5 3535	469 472 470 471 1324
2.70 -0.21 -0.82 4.65 1.24 1.39 4.88 0.08 0.05 5.20 0.33 0.12 1.27 -0.25 -1.00	0.88 1.49 0.08 0.10	R3IV K2III A2V A6 B0III	109668 110014 110411 110951 111123	17179 17227 17276 17346 17374	-68 1702 - 7 3452 11 2485 8 2639 -59 4451	474 475 1326 1328 481
6.40 1.06 1.82 4.94 0.67 0.21 4.80 1.59 1.57 3.37 1.57 1.76 5.24 0.28 0.02	0.52 0.87 1.56 2.83 1.55 2.88	A5 G0III M3III M3III A5	111239 111812 112142 112300 112429	17455 17516 17543 17554	4 2653 28 2156 - 8 3449 4 2669 66 778	1330 1332 1335 484 486
3.61 1.18 1.26 2.83 0.93 0.73 5.20 -0.09 -0.21 4.26 -0.20 -0.76 4.28 0.57 0.07	2.68 1.09 -0.08 -0.28 0.48 0.77	K2III G9III B9V B2V G2V	112985 113226 113797 113791 114710	17672 17687 17751 17773 17874*	-70 1548 11 2529 36 2337 -49 7644 28 2193	487 488 1337 489 492
4.79     -0.09     -0.34       4.79     1.66     1.95       4.72     0.30     0.20       4.75     0.71     0.25       2.98     0.92     0.65	0.25 0.40 0.58 0.94 0.63 1.09	R8V GM2 F0IIP G6V G8III	114911 115521 115604 115617 115659	17927 17995 18000 18007* 18012	-67 2224 6 2722 41 2380 -17 3813 -22 3554	453 1344 494 1345 495
2.75 0.04 0.04 5.23 1.50 1.72 4.98 0.71 0.26 4.93 0.03 0.00 3.36 0.11 0.11	0.06 0.04			18335	-36 8497 -11 3516 14 2621 4 2764 0 3076	1351
5.72 0.95 0.66 2.30 -0.24 -0.92 5.00 1.63 1.93 5.57 0.80 0.00 4.23 0.38 -0.02		GOII WSIII	118716 119149	18509	- 4 3515 -52 6655 - 7 3674 -15 3731 -32 9603	1352 504 1355 1357 506
1.88 -0.19 -0.68 4.59 1.60 1.86 2.69 0.58 0.19 2.54 -0.23 -0.90 5.15 -0.10 -0.40	1.58 2.95 0.45 0.74	M3	121370	18643 18750 18805* 18809 18887	65 963	509 511 513 512 515
4.26 0.10 0.10 3.65 -0.05 -0.09 3.26 1.12 1.04 2.08 1.01 0.85 4.82 1.36 0.00	-0.03 -0.10	LIIOA	123123 123139	19019 19029 19033	2 2761 65 978 -2610095 -35 9260 78 478	516 521 519 520 524

FK4 NUMBER	NAME		PROPER MO- TION IN RA SEC/CENT		
522 523 526 525 528	12 ROO KAP VIR ALP BOO TOT VIR TOT BOO	14 9 18.201 14 11 36.718 14 14 33.906 14 14 45.199 14 15 18.883	0.035 -7.732 -0.055	+25 12 17.13 -10 9 45.61 +19 18 24.40 - 5 53 11.84 +51 28 38.77	-200.08
527 1370 1371 1372 529	1 AM BOO A 600 LAM VIR 18 BOO V CEN	14 15 28.241 14 16 58.871 14 17 48.437 14 18 6.489 14 18 38.152	-0.020 -0.128 0.723	+46 11 52.76 +35 37 10.70 -13 15 40.85 +13 6 51.66 -56 16 36.77	1.07 2.41 -3.48
1373 1374 531 1379 534	PSI CEN 2 LIB THE BOO 5 UMI RHO BOO	14 19 5.400 14 22 7.909 14 24 22.697 14 27 33.345 14 30 47.662	-0.086 -2.605 0.119	-37 46 32.53 -11 36 18.61 +51 57 40.26 +75 48 9.56 +30 28 34.10	-6.34 -40.07
138n 54n 541 539 1382	SIG BOO 33 BOO ALP LUP ALP CIR 32 BOO	14 33 38.055 14 37 56.568 14 40 19.468 14 40 32.895 14 40 34.231	-0.662 -0.175 -2.912	+29 50 55.42 +44 30 27.10 -47 17 9.80 -64 52 18.48 +11 45 47.83	-1.99 -1.98 -23.84
545 542 547 1387 548	MU VIR ALP APS 109 VIR ALP1 LIB ALP2 LIB	14 41 47.540 14 44 48.458 14 45 1.979 14 49 21.306 14 49 32.807	-0.084 -0.763 -0.701	- 5 33 16.81 -78 56 40.59 + 1 59 35.46 -15 53 54.05 -15 56 34.42	-1.82 -3.11 -7.24
550 1390 552 555 556	RET UMI VI2 LIB RET LUP RET BOO SIG LIB	14 50 45.487 14 55 27.741 14 56 57.111 15 1 2.414 15 2 39.640	0.045 -0.344 -0.404		0.39 -4.30 -3.24
557 1396 1398 558 559	PSI BOO 45 BOO KAP1 LUP ZET LUP TOT LIB	15 3 24.942 15 6 14.722 15 10 15.399 15 10 33.052 15 10 50.939	1.357 -0.973 -1.161	+27 2 25.69 +24 57 42.61 -48 38 51.53 -52 0 32.30 -19 42 6.68	-17.08 -4.98 -6.99
1399 562 561 564 560	1 LUP 3 SER BET CIR BET LIR GAM TRA	15 13 8.783 15 13 59.629 15 15 37.307 15 15 42.725 15 16 38.777	-0.125 -1.216 -0.662	-31 25 50.09 + 5 1 39.30 -58 42 46.35 - 9 17 43.09 -68 35 32.48	0.10 -13.99 -2.36
1402 566 569 1403 1406	DEL LUP PHI1 LUP GAM UMI PHI2 LUP 8 SER	15 19 47.379 15 20 16.615 15 20 45.162 15 21 36.964 15 22 29.302	-0.747 -0.509 -0.151	-40 33 42.54 -36 10 31.35 +71 55 9.86 -36 46 24.59 - 0 56 15.74	-8.74 1.87 -2.50

TABLE 1 CONTINUED

MAGNITUDES A V B-V U-B		SPECTRAL TYPE	HD NUMBER	GC NUMBER	DM NUMBER	
4.83 0.53 0.0 4.18 1.33 1.4 0.05 1.23 1.2 4.08 0.51 0.0 4.75 0.22 0.0	7 1.07 1.82 6 0.98 1.64 3 0.49 0.77	K3111 K2111 F71V	123999 124294 124897 124850 125161	19127 19168 19242 19244 19269	25 2737 - 9 3878 19 2777 - 5 3843 52 1784	523 526 525
4.18 0.08 0.0 4.80 1.06 0.9 4.52 0.13 0.1 5.40 0.37 -0.0 4.32 0.12 -0.4	1 0.76 1.29 1 0.10 0.13	KOIII A8M	125162 125351 125337 125451 125288	19273 19296 19311 19319 19318	96 1949 36 2468 -12 4018 13 2782 -55 8984	1370 1371
4.04 -0.03 -0.1 6.27 0.63 0.0 4.05 0.49 0.0 4.26 1.43 1.7 3.57 1.29 1.4	8 1 0.43 0.68 0 1.06 1.81	G3 F7V K4III	125473 126053 126660 127700 127665	19337 19467 19548 19597	-37 9336 1 2920 52 1804 76 527 31 2628	1374 531
4.46 0.35 -0.0 5.31 -0.01 -0.0 2.31 -0.21 -0.8 3.18 0.24 0.1 5.55 0.94 0.6	4 8 -0.08 -0.25 5	AO B1V FOIII	128167 129002 129056 128898 129336	19659 19747 19774 19772 19793	30 2536 45 2204 -46 9501 -64 2977 12 2729	540 541 539
3.88 0.38 -0.0 3.85 1.44 1.6 3.74 0.00 -0.0 5.16 0.41 -0.0 2.75 0.15 0.0	8 3 0.07 0.05 4	K5III A0V F5IV	129502 129078 130109 130819 130841	19834 19884* 19970*	- 5 3936 -78 893 2 2862 -15 3965 -15 3966	542 547
2.07 1.46 1.7 5.46 1.49 0.0 2.67 -0.22 -0.8 3.49 0.96 0.7 3.32 1.68 1.9	0 5 -0.09 -0.26 1 0.65 1.10	K4III B2IV G8III		20096 20128 20226	74 595 -10 3989 -42 9853 40 2840 -2411834	1390 552 555
4.52 1.25 1.3 4.93 0.42 -0.0 3.86 -0.05 -0.1 3.40 0.92 0.6 4.53 -0.09 -0.3	2 0.38 0.60 0 -0.03 -0.05 7	F5V R9V G8III	134481	20342 20409 20418	27 2447 25 2873 -48 9704 -51 8830 -19 4047	1396 1398 558
4.90 0.38 0.2 5.32 1.10 0.9 4.06 0.09 0.0 2.61 -0.11 -0.3 2.89 0.00 -0.0	1 8 7 -0.04 -0.13	GK0 A3V B8V	135153 135482 135379 135742 135382	20501 20526 20539*	5 2985	562 561 564
3.21 -0.23 -0.8 3.55 1.53 1.8 3.04 0.05 0.0 4.53 -0.15 -0.6 6.14 0.24 0.0	7 1.19 2.06 9 0.11 0.17 1 -0.03 -0.17	K5III A3II B5V	136298 136422 137422 136664 137006	20643 20692 20676	-40 9538 -3510236 72 679 -3610103 - 0 2961	566 569 1403

FK4 NUMBER	NAME			DECLINATION DEG MIN SEC	
568 571 570 572 567	MU BOO IOT DRA TAU1 SER RET CRA KAP1 APS	15 23 34.929 15 24 23.485 15 24 40.484 15 26 50.267 15 28 51.856	-0.199 -0.099 -1.375	+37 27 38.13 +59 2 58.76 +15 30 41.54 +29 11 15.58 -73 18 29.56	1.33
576 1409 577 574 580	THE CRR 37 LIB GAM LIB FPS TRA PHI BOO	15 31 57.604 15 32 51.776 15 34 10.793 15 34 30.298 15 36 57.770	2.057 0.429 0.486	+31 26 21.47 - 9 58 59.95 -14 42 38.00 -66 14 16.98 +40 25 51.17	-1.50 -24.08 0.31 -6.51 5.91
1413 582 590 584 585	KAP LIR ALP SER ZET UMI KAP SER MU SER	15 40 33.581 15 43 5.012 15 44 52.870 15 47 39.452 15 48 21.891	0.909 0.447 -0.349	-19 36 7.64 + 6 30 0.78 +77 52 8.15 +18 12 53.23 - 3 21 28.07	4.48
586 588 1414 1416 1415	CHI LUP EPS SER KAP CRB CHI HER LAM LIB	15 49 25.689 15 49 37.029 15 50 19.549 15 51 50.624 15 51 56.224	0.839 -0.091 3.937	-33 33 18.84 + 4 32 56.49 +35 43 51.71 +42 31 4.84 -20 5 47.10	6.16
589 591 592 594 1419	RET TRA GAM SER PI SCO DEL SCO 49 LIB	15 53 0.771 15 55 20.531 15 57 23.745 15 58 54.624 15 58 58.546	2.134 -0.074 -0.073	-63 21 29.28 +15 44 20.53 -26 2 46.03 -22 33 16.21 -16 27 49.54	
1420 598 596 599 1421	50 LIB THE DRA DEL NOR THE LUP KAP HER	15 59 29.693 16 1 26.098 16 4 47.252 16 5 0.636 16 6 59.415	-4.178 0.019 -0.158	- 8 20 40.51 +58 37 44.22 -45 6 33.98 -36 44 17.70 +17 6 35.70	-1.83 33.48 2.67 -3.35 -1.08
601 603 602 606 605	PHI HER DEL OPH DEL TRA 19 UMT EPS OPH	16 8 0.664 16 13 5.103 16 13 14.407 16 11 29.197 16 17 2.917	-0.314 0.149 -0.188	+44 59 49.75 - 3 38 0.93 -63 37 33.93 +75 56 18.73 - 4 38 6.26	3.53 -14.51 -1.42 1.23 3.88
612 1427 1428	GAM2 NOR FTA UMI SIG SER 23 HER ZET TRA	16 18 2.212 16 18 11.156 16 20 51.270 16 22 1.083 16 25 52.131	-2.376 -1.046 0.139	-50 5 53.36 +75 48 39.97 + 1 5 3.83 +32 23 17.42 -70 1 57.07	24.97
619 618 611 621 620	A DRA RET HER GAM APS SIG HER TAU SCO	16 28 1.270 16 29 11.177 16 29 43.316 16 33 19.627 16 34 23.076	-0.708 -4.035 -0.132	+68 49 12.21 +21 32 27.43 -78 50 46.30 +42 29 8.93 -28 10 3.07	

TABLE 1 CONTINUED

3.30 1.17 1.22 0.78 1.38 K2III 137759 20747 59 1654 57 5.17 1.66 1.95 M1III 137471 20740 15 2858 57	68 71 70 72
3.30 1.17 1.22 0.78 1.38 K2III 137759 20747 59 1654 57 5.17 1.66 1.95 M1III 137471 20740 15 2858 57	71 70 72
5.17 1.66 1.95 MIIII 137471 20740 15 2858 5	70 72
	72
	5/
5.48 -0.13 -0.76 B3IV 137387 20801 -72 1802 50	
4.16 -0.13 -0.55 -0.05 -0.16 R6E 13A749 20908 31 2750 5	76
4.61 1.01 0.87 0.75 1.28 K1IV 138716 20914 - 9 4171 14	
	77
110000	74
5.24 0.88 0.53 G8III 139641 21032 40 2907 5	80
4.72 1.57 1.96 1.26 2.21 K5III 139997 21094 -19 4188 14	13
	82
	90
	84
3.54 -0.04 +0.11 0.00 -0.05 AOV 141513 21269 - 2 4052 5	85
3.94 -0.05 -0.12 -0.01 -0.08 AOIV 141556 21281 -3310754 5	86
	88
4.81 1.00 0.87 0.76 1.25 KOIII 142091 21319 36 2652 14	
4.61 0.55 0.01 0.48 0.80 F9V 142373 21340 42 2648 14	
5.01 -0.01 -0.58 0.01 -0.04 B3V 142096 21327 -19 4249 14	15
2.84 0.30 0.02 F2IV 141891 21332 -63 3723 5	89
	91
	92
	94
5.46 0.52 0.02 F8V 143333 21495 -16 4196 14	19
5.54 0.05 -0.05 A1 143459 21502 - 7 4162 14	20
	98
	96
	99
5.00 0.95 0.61 G8III 145001 21696 17 2964 14	21
4.25 -0.06 -0.27 0.00 -0.09 B9P 145389 21736 45 2376 6	01
2.73 1.59 1.95 1.29 2.32 MIIII 146051 21838 - 3 3903 6	03
	0.5
	06
3.23 0.96 0.75 0.70 1.19 G9III 146791 21920 - 4 4086 6	05
4.04 1.07 1.17 0.77 1.35 G8III 146686 21933 -4910536 6	04
4.94 0.37 0.00 A8 148048 21999 16 596 6	
4.81 0.34 0.02 0.28 0.43 FOV 147449 22007 1 3215 14	
6.40 0.08 0.12 A3V 147835 22040 32 2716 14	
4.89 0.55 0.02 GOV 147584 22089 -69 2558 6	
4.97 -0.06 -0.12 0.04 0.01 B9IV 149212 22194 69 850 6	19
	18
	11
	21
	20

FK4 NUMBER	NAME	RIGHT ASCENSION HRS MIN SEC	TION IN RA	DECLINATION DEG MIN SEC	
1433 622 1434 626 625	12 OPH ZET OPH 42 HER ETA HER ALP TRA	16 35 5.644 16 35 50.066 16 38 5.609 16 42 4.270 16 46 6.599	0.076 -0.516 0.284	- 2 16 28.29 -10 31 10.82 +48 58 29.07 +38 58 1.90 -68 59 8.84	-31.36 2.26 3.11 -8.28 -3.33
1435 1438 628 1440 1442	FTA ARA 20 OPH FPS SCO 51 HER TOT OPH	16 47 42.279 16 48 30.194 16 48 36.308 16 50 45.464 16 52 52.216	0.633 -4.915 0.090	-59 0 1.26 -10 44 30.41 -34 15 3.74 +24 41 45.13 +10 12 13.66	
633 631 634 1445 1446	KAP OPH ZET ARA EPS HER 30 OPH 59 HER	16 56 31.808 16 56 37.648 16 59 22.166 16 59 47.499 17 0 43.068	-0.155 -0.375 -0.290	+ 9 24 40.74 -55 57 14.16 +30 57 39.30 - 4 11 15.99 +33 36 7.71	-1.02 -3.53 2.77 -7.62 -0.15
635 639 638 643 1456	60 HER ZET DRA FTA SCO PI HER 72 HER	17 4 15.793 17 8 42.727 17 10 25.807 17 14 12.551 17 19 45.539	-0.403 0.219 -0.250	+12 46 21.99 +65 44 38.80 -43 12 32.40 +36 50 7.47 +32 29 51.85	-1.07 2.08 -28.45 0.28 -104.24
644 645 1457 1459 646	THE OPH RET ARA 44 OPH SIG OPH 45 OPH	17 20 31.987 17 23 18.026 17 24 54.124 17 25 19.306 17 25 49.161	-0.011 0.005 0.010	-24 58 36.83 -55 30 32.25 -24 9 16.35 + 4 9 36.27 -29 50 48.18	
648 649 1460 651 655	DEL ARA HPS SCO LAM HER ALP ARA NU1 DRA	17 28 55.656 17 29 7.750 17 29 45.999 17 29 59.002 17 31 42.016	-0.009 0.130 -0.247	-60 39 56.42 -37 16 41.37 +26 7 40.26 -49 51 31.78 +55 12 0.76	-3.19 1.91 -7.12
659	NU2 DRA LAM SCO 27 DRA ALP OPH THE SCO	17 31 47.468 17 31 58.584 17 32 3.340 17 33 49.114 17 35 35.491	0.014 -0.329 0.808	-37 5 15.93 +68 9 1.43 +12 34 35.26	-2.88 13.42 -22.69
658 664 663 660 1463	XI SER OME DRA TOT HER KAP SCO 58 OPH	17 37 5.246 17 38 47.105 17 40 49.480	-0.059 -0.096 -0.057		32.24 0.41 -2.88
661 666	MU ARA BET OPH ETA PAV TOT1 SCO GAM OPH	17 42 17.105 17 43 22.435	-0.279 -0.047 0.007	+ 4 34 34.27	15.85 -5.20 -0.64

TABLE 1 CONTINUED

		SPECTRAL		GC	DM Number	FK4
V B=V U=	B V-R V-I	TYPE	NUMBER	NUMBER	NUMBER 1	HIMBER
5.75 0.83 0. 2.56 0.02 -0. 4.90 1.55 0.	86 0.10 0.06 00	GM2	149661 149757 150450	22412	- 2 4211 -10 4350 49 2531	1433 622 1434
3.53 0.92 0. 1.93 1.45 1.		67111 K3111	150997 150 <b>7</b> 98	22502 22558	39 3029 -68 2822	626 625
3.75 1.56 1. 4.65 0.47 0. 2.30 1.15 1.	05 0.44 0.69 16 0.86 1.46	K2III	151249 151769 151680	22606 22643 22640	-58 6906 -10 4394 -3411285	1435 1438 628
5.04 1.25 1. 4.37 -0.09 -0.	33 -0.09 <b>-</b> 0.17	H8V KSII	152326 152614	22708 22775	24 3069 10 3092	1440 1442
3.20 1.15 1. 3.12 1.60 1. 3.91 -0.02 -0. 4.81 1.48 1. 5.25 0.08 0.	96 11 -0.01 -0.05 83	K5III	153210 152786 153808 153687 154029	22862 22845 22935 22937 22975	9 3298 -55 7766 31 2947 - 4 4215 33 2817	633 631 634 1445 1446
	66 0.96 1.68	R6III F0IV	154494 155763 155203 156283 157214	23061 23182 23180 23362 23446	12 3142 65 1170 -4311485 36 2844 32 2896	635 639 638 643 1456
4.34 1.50 1.	56 10 0.26 0.38	K31B A9V K311	157056 157244 157792 157999 157919	23451 23515 23597 23621 23627	-2413292 -55 8100 -2413337 4 3422 -2913557	644 645 1457 1459 646
3.59 -0.10 -0. 2.70 -0.23 -0. 4.40 1.44 1. 2.94 -0.18 -0. 4.88 0.27 0.	82 -0.16 -0.40 68 1.06 1.82 68 -0.10 -0.34	K4III R2.5VE		23681 23693 23726 23708 23797	-60 6842 -3711638 26 3034 -4911511 55 1944	648 649 1460 651 655
4.88 0.27 0. 1.62 -0.21 -0. 5.06 1.08 0. 2.08 0.15 0. 1.86 0.40 0.	92 10 0.14 0.22	R1V KOIII A5III	158926 159966 159561	23801 23769 23821 23837* 23857	55 1945 -3711673 68 938 12 3252 -4212312	657 652 659 656 654
3.54 0.26 0. 4.80 0.42 -0. 3.80 -0.18 -0. 2.41 -0.22 -0. 4.87 0.46 -0.	69 -0.10 -0.27 89 -0.08 -0.30	F5V R3V B2IV	160922 160762	23881 23944 23965 23988 24030	-15 4621 68 949 46 2349 -3812137 -21 4712	658 664 663 660 1463
5.12 0.70 0. 2.77 1.16 1. 3.62 1.20 1. 3.03 0.52 0. 3.75 0.04 0.	24 0.81 1.38 15	KO F2IA	161096 160635	24024 24048* 24044 24125 24162*		662 665 661 666 668

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT	DECLINATION	PROPER MO- TION IN DEC SEC/CENT
669	5 500	17 48 13.370		-37 2 13.51	
675	35 DRA	17 50 31.154		+76 58 1.21	
671	YI DRA	17 53 6.669		+56 52 33.53	
1468 672	A9 HER THE HER	17 54 26.981 17 55 25.682		+26 3 10.51 +37 15 10.43	0.68
912	ias usk	17 35 25.662	0.007	+57 15 10.45	0.61
676	GAM DRA	17 56 2.799	-0.138	+51 29 28.34	-1.98
674	XI HER	17 56 49.835		+29 14 58.54	
673	NU OPH	17 57 42.209		- 9 46 19.03	
1469	93 HER	17 58 59.215		+16 45 4.40	-1.19
679	GAM SGR	18 4 15.883	-0.406	-30 25 32.82	-18.50
1471	THE ARA	18 4 45 646	-0.114	-50 5 41.46	-1.71
680	72 OPH	18 6 12.611		+ 9 33 33.76	
1473	FPS TEL	18 9 26.799		-45 57 36.32	
685	36 DRA	18 13 45.377		+64 23 20.33	
1474	AG TEL	18 15 6.140	-0.073	<b>-</b> 56 1 57.65	-1.25
1477	KAP LYE	18 19 1.124	-0.158	+36 3 10.63	4.27
687	DEL SGR	18 19 27.410		-29 50 23.13	-2.89
1476	74 OPH	18 19 40.076		+ 3 21 54.91	
688	ETA SER	18 20 3.976		- 2 54 22.31	
695	CHI DRA	18 21 29.290	11.762	+72 43 22.27	-35.18
689	FPS SGR	18 22 34.714	-0.257	-34 23 50.90	-12.55
690	109 HER	18 22 40.420		+21 45 28.24	
691	ALP TEL	18 25 11.610	-	-45 58 59.34	
692	LAM SGR	18 26 29.311		-25 26 10.71	
696	GAM SCT	18 27 49.697	0.007	-14 34 56.74	-0.53
1480	60 SER	18 28 25.949	0.199	- 2 0 7.19	-3.33
697	THE CRA	18 31 47.312		-42 19 52.82	
1482	ALP SCT	18 33 53.983		- 8 15 43.39	-31.19
699				+38 45 37.90	
698	ZET PAV	18 40 14.3//	0.184	-71 27 4.62	-15.75
702	EPS SCT	18 42 12.759			
1487	PHI SGR	18 44 9.386		-27 1 0.49	
	RET SCT			- 4 46 29.03	
	111 HER			+18 9 13.55	
1470	FTA1 CRA	18 47 6.569	0.225	-43 42 27.73	-1.69
1494	50 DRA	18 47 9.070		+75 24 23.21	
704	I AM PAV			-62 13 1.78	
707	OMI DRA			+59 21 31.30	
706	SIG SGR			-26 19 40.33	
714	HPS DRA	TO 04 41.000	0.751	+71 15 55.52	4.53
710	YI2 SGR	18 56 17.852		-21 8 22.17	
				+32 39 20.80	
	FPS AQL			+15 2 4.84	
	LAM AGL			- 4 55 10.78	
エエンド	TAU SGR	17 7 26 000	-0.346	-27 42 24.62	-24.95

TABLE 1 CONTINUED

MAGNITUDES AND V B-V U-B	COLORS S V-R V-1	PECTRAL TYPE	HD NUMBER	GC NUMBER	DM NUMBER	FK4 NUMBER
3.70 1.16 1.19 5.01 0.50 0.00 3.74 1.18 1.22 5.45 0.34 0.29 3.84 1.35 1.46	0.85 1.43 0.31 0.52 0.90 1.52	K2III F2IA K2III	161892 163989 163588 163506 163770	24188 24343 24364 24382 24415	-3711907 76 667 56 2033 26 3120 37 2982	675 671 1468
2.23 1.52 1.87 3.70 0.94 0.69 3.34 0.99 0.88 4.66 1.26 1.23 2.99 1.01 0.74	1.16 2.02 0.71 1.17 0.72 1.20 0.84 1.46 0.73 1.24	K5III G9III K0III K0III	164058 163993 163917 164349 165135	24432 24448 24468 24502 24632	51 2282 29 3156 - 9 4632 16 3335 -3015215	674 673 1469
3.67 -0.08 -0.89 3.73 0.13 0.10 4.53 1.00 0.79 5.02 0.36 0.00 5.34 -0.06 0.00	0.10 0.15 0.70 1.18	B1II A4V G5III F5V B3V	165024 165777 166063 168151 167128	24635 24695 24767 24916 24906	-5011720 9 3564 -4512251 64 1252 -58 8706	680 1473 685
4.32 1.17 1.20 2.70 1.38 1.53 4.85 0.91 0.61 3.26 0.95 0.66 3.56 0.49 -0.05	0.86 1.41 1.00 1.08 0.67 1.12 0.69 1.19 0.45 0.75	K2III K2III G8III K0IV F7V	168775 168454 168656 168723 170153	25032 25024 25036 25046 25122	36 3094 -2914834 3 3680 - 2 4599 72 839	687 1476 688
	0.00 -0.01 0.85 1.45 -0.13 -0.34 0.76 1.32 0.08 0.13	R9IV K2III R3III K2III A3V	169022 169414 169467 169916 170296	25100 25116 25154 25180 25220	-3412784 21 3411 -4612379 -2513149 -14 5071	690 691 692
5.38 0.96 0.76 4.63 1.01 0.77 3.85 1.33 1.54 0.04 0.00 0.00 4.00 1.14 1.02	0.69 1.19 0.98 1.65 -0.04 -0.07	K0111 G5111 K3111 A0V			- 2 4641 -4213378 - 8 4638 38 3238 -71 2353	697 1482 699
-	0.01 -0.10 0.79 1.36 0.10 0.11	G811 G511 A3V A2V	173300	25610 25661 25730 25734 25748	- 8 4686 -2713170 - 4 4582 18 3823 -4312841	1487 1489 1491
5.35 0.05 0.04 4.21 -0.15 -0.88 4.65 1.19 1.05 2.06 -0.21 -0.74 4.81 1.16 1.10		KOIII BSV BSIII	175306	25823	75 682 -62 5983 59 1925 -2613595 71 915	704 707 706
3.50 1.18 1.15 3.25 -0.05 -0.09 - 4.02 1.08 1.04 3.43 -0.10 -0.27 - 3.31 1.19 1.14	0.76 1.28	K1III R9III K2III R8V K1III	176437 176411			713 712 717

FK4 NUMBEP	NAME	RIGHT ASCENSION HRS MIN SEC	TION IN RA		PROPER MO- TION IN DEC SEC/CENT
719 718 720 1500 723	TOT LYR ALP CRA PI SGR 20 AGL DEL DRA	19 6 26.619 19 7 50.397 19 8 20.176 19 11 22.543 19 12 33.065	0.709 -0.003 0.086	+36 3 42.45 -37 56 35.98 -21 3 47.00 - 7 58 50.96 +67 37 9.67	
724 729 726 725 1502	THE LYR TAU DRA KAP CYG OME AGL BET1 SGR	19 15 31.997 19 16 1.173 19 16 32.807 19 16 41.321 19 20 54.858	-3.329 0.610 0.001	+38 5 24.81 +73 18 40.99 +53 19 25.31 +11 33 4.17 -44 30 20.02	11.03 12.54
728 1507 730 1508 733	ALP SGR 31 AGL NEL AGL ALP VUL TOT CYG	19 22 13.477 19 23 49.463 19 24 17.226 19 27 42.320 19 29 5.977	4.912 1.693 -0.925	-40 39 45.19 +11 53 31.18 + 3 3 57.11 +24 36 55.65 +51 40 41.21	64.18 8.40
1509 151n 1511 735 737	36 AGL A CYG MU AGL TOT TEL KAP AGL	19 29 24.460 19 30 52.693 19 32 54.945 19 33 26.299 19 35 35.952	-0.019 1.445 -0.133	- 2 50 23.77 +34 24 4.23 + 7 19 37.02 -48 9 8.89 - 7 4 55.19	-0.03
1512 1513 1514 1515 740	54 SGR RET SGE 55 SGR 10 VUL 15 CYG	19 39 20.876 19 39 58.184 19 41 8.739 19 42 42.958 19 43 24.558	0.062 0.437 0.081	-16 20 57.79 +17 25 10.05 -16 10 53.16 +25 42 49.17 +37 17 44.17	-3.26
743	56 SGR GAM AQL MU TEL DEL SGF ALP AQL	19 44 57.742 19 45 7.054 19 46 3.969 19 46 18.979 19 49 36.678	0.108 1.131 0.047	+10 33 13.86 -56 25 18.87	0.15 -13.50 1.03
1520 749 1522 752 748	TOT SGR RET AQL 61 SGR GAM SGE FPS PAV	19 53 36.482 19 54 7.990 19 56 35.354 19 57 41.304 19 57 50.524	0.298 0.096 0.460	-41 55 57.95 + 6 20 45.00 -15 33 22.54 +19 25 33.96 -72 58 33.93	-47.94 -9.80
751 1523 753 1524 755	THE1 SGR 15 VUL 62 SGR TAU AQL XI TEL	19 58 10.565 20 0 6.650 20 1 11.025 20 2 57.916 20 5 33.200	0.439 0.289 0.089	-35 20 32.88 +27 41 11.40 -27 46 39.85 + 7 12 33.34 -52 57 3.46	0.99
754 1525 756 758 1526	DEL PAV 28 CYG THE AQL 33 CYG RHO AQL	20 6 23.104 20 8 32.027 20 10 3.945 20 12 50.365 20 13 9.922	0.014 0.236 0.729	-66 14 42.45 +36 46 5.73 - 0 53 37.06 +56 29 37.96 +15 7 24.72	1.59 0.73

TABLE 1 CONTINUED

V B-V	DES AND		RS :		HD NUMBER	GC NUMBER	OM NUMBER	
5.26 -0.11 4.10 0.04 2.89 0.36 5.34 0.13 3.07 1.00	0.07 0.19 -0.47	0.04 0.46 0.70	0.04 0.81 1.21	B7IV B3IV G9III	178475 178253 178524 179406 180711	26338 26360 26386 26461 26520	35 3485 -381335 -21 5275 - 8 4887 37 3398	718 720 7500
4.35 1.26 4.45 1.25 3.77 0.96 5.28 0.20 3.92 -0.09	1.45	0.87 0.90 0.63	1.46 1.47 0.11	KOII KOIII A3 B8V	180809 181984 181276 180868 181454	26585 26638 26621 26609 26703	67 1129 73 857 53 2216 11 3790 -4413277	729 726 725
3.96 -0.11 5.15 0.76 3.36 0.32 4.42 1.50 3.77 0.15	0.04	0.26 1.21 0.14	0.41 2.18 0.21	B8V G8IV F0IV M0III A5V	181869 182572 182640 183439 184006	26737 26809 26816 26904 26947	-4013245 11 3833 2 3875 24 3755 51 2605	1503 730 1508
5.02 1.75 4.73 -0.13 4.44 1.18 4.88 1.10 4.96 -0.01	-0.67 1.26 0.00		-0.16 1.45 0.06	M1III B3IV K3III G9III B0.5III	183630 184171 184406 184127 184915	27030 27025	- 3 4612 34 3590 7 4132 -4813161 - 7 5006	1510 1511 735
5.31 1.14 4.37 1.05 5.05 0.34 5.48 0.93 4.90 0.96	1.06 0.90 0.00 0.67 0.69	0.72	1.22	68111 68111 6811 6811 K5111	185644 185958 186005 186486 186675	27214 27236 27255 27305 27328	-16 5399 17 4048 -16 5413 25 3933 37 3586	1513 1514 1515
4.86 0.93 2.72 1.53 5.34 0.20 3.80 1.41 0.77 0.22	1.68 0.00 0.96		2.72	V6V MSII		27349 27354 27358 27396 27470*	-20 5698 10 4043 -56 9290 18 4240 8 4236	741 739 743
4.12 1.08 3.71 0.86 5.02 0.05 3.48 1.56 3.96 -0.03	0.48 0.07 1.93	0.66		G8III G2IV A2IV K5III	188512 188899	27587* 27637 27672	-4214549 6 4357 -15 5516 19 4229 -73 2086	749 1522 752
4.35 -0.15 4.63 0.18 4.50 1.63 5.51 1.06 4.93 1.62	0.15 1.77 0.86		0.24 3.43	R3IV AM M4III GKO M2III	189849 189763	27753 27763	-3513831 27 3587 -2816355 6 4416 -53 9794	7 1523 753 1524
3.57 0.76 4.94 -0.15 3.25 -0.06 4.28 0.12 4.95 0.07	-0.74 -0.15 0.09	0.07	-0.12	A3V	191610	28010 28108	-66 3474 36 3907 - 1 3911 56 2376 14 4227	1525 756 758

TABLE 1 CONTINUED

FK4 NUMBER	NAME	ASCENSION	PROPER MO- TION IN RA SEC/CENT		
1527 1529 762 763 765	ALP1 CAP 4 CAP RET CAP KAP1 SGR GAM CYG	20 16 19.050 20 16 36.841 20 19 39.778 20 20 49.936 20 21 21.914	0.245 0.273 0.317	-12 35 0.37 -21 53 6.93 -14 51 29.61 -42 7 35.53 +40 10 45.19	-2.51 0.29 -9.08
764 1533 1534 1535 767	ALP PAV 69 AQL 41 CYG 42 CYG THE CEP	20 23 45.460 20 28 23.704 20 28 24.792 20 28 25.356 20 29 10.773	0.460 0.042 0.015	-56 48 48.29 - 2 57 58.50 +30 17 15.77 +36 22 26.25 +62 54 47.38	-1.70 0.15 0.20
768 769 1539 774 773	FPS DEL ALP IND 29 VUL ALP DEL HPS CAP	20 32 3.912 20 35 53.070 20 37 26.922 20 38 31.325 20 38 41.033	0.543 0.505 0.448	+11 13 15.17 -47 22 35.02 +21 6 58.34 +15 49 35.59 -18 13 26.92	6.97 0.80
777 776 775 779 783	ALP CYG FTA IND RET PAV PSI CAP FTA CEP	20 40 36.721 20 42 17.020 20 42 48.779 20 44 40.574 20 44 48.146	1.749 -0.611 -0.361	+45 11 38.49 -52 0 28.75 -66 17 27.20 -25 21 29.50 +61 44 43.00	-5.41
780 781 1543 1546 1547	FPS CYG FPS AGR 3 AGR OME CAP MU AGR	20 45 14.295 20 46 22.608 20 46 28.237 20 50 23.463 20 51 21.560	0.219 -0.008 -0.045	+33 52 46.80 - 9 35 4.32 - 5 6 59.34 -27 0 35.80 - 9 4 27.35	-3.20 -3.76
789	RET IND 32 VUL NU CYG 11 AGR GAM MIC	20 52 56.698 20 53 32.137 20 56 16.589 20 59 17.980 20 59 49.299	-0.019 0.073 0.302	-58 32 45.52 +27 57 56.40 +41 4 27.19 - 4 49 25.63 -32 21 9.22	0.19 -1.15
787 792 1552 791 794	ALP OCT XI CYG THE CAP A CAP NU AQR	21 1 51.726 21 4 3.344 21 4 35.937 21 5 43.553 21 8 17.221	0.047 0.577 -0.168	-77 7 1.69 +43 49 53.61 -17 19 44.62 -25 6 9.67 -11 28 11.04	0.43
1554 797 800 1558 801	OMI PAV ZET CYG ALP EQU SIG CYG FPS MIC	21 11 6.951 21 11 54.764 21 14 37.398 21 16 28.240 21 16 29.122	-0.013 0.379 -0.019	-70 13 32.62 +30 7 40.41 + 5 8 52.40 +39 17 36.69 -32 16 25.53	-5.21 -8.36
808	MPS CYG ALP CEP THE1 MIC TOT CAP 1 PEG	21 16 55.715 21 18 0.379 21 19 13.770 21 20 54.674 21 20 58.496	2.155 0.600 0.223	+34 47 43.71 +62 29 0.88 -40 54 43.21 -16 56 15.40 +19 42 4.21	

TABLE 1 CONTINUED

V M	AGNITU B-V	DES AND	COLOR V-R	RS S	SPECTRAL TYPE	HD NUMBER	GC NUMBER	DM	FK4
·		U-U	V	v – 1	1116	MADURE	NUMBER	NUMBER	MINERER
4.24	1.07	0.79	0.79	4 70	0710	.0007	20400		
5.85			0.75	1.32	G3IB	192876	28189	-12 5683	1527
3.07	-		0.55	1.05	KOIII F8V	192879	28195	-22 5384	1529
5.58	0.00		0.55	1.00	AOV	193495 193571	28295 28309	-15 5629	762
2.21			0.50	0.84	F8IB	194093	28338	-4214836 39 4159	763
	0.01	0 4 5 0	0.50	0.04	FOID	174070	20000	39 4139	765
1.92					B3IV	193924	28374	-57 9674	764
4.90	1.15				K2III	195135	28504	- 3 491 <sub>F</sub>	1533
4.01	0.41		0.37	0.60	F5II	195295	28513	29 4057	1534
5.88	0.52				AIIB	195324	28515	35 4141	1535
4.21	0.20	0.15	0.18	0.23	AΜ	195725	28541	62 1821	767
4.03	-0.13	-0.48	-0.02	-0.13	REIII	195810	28593	10 4321	768
	1.00	0.80			KOIII	196171	28682	-4713477	769
	-0.02		0.02	-0.02	AOV	196724	28740	20 4658	1539
		-0.22	0.03	-0.01	R9V	196867	28780*	15 4222	774
5.10	1.63	2.01			WSIII	196777	28777	-18 5738	773
1.25	0.09	-0.23	0.12	0.22	AZIA	197345	28846	44 3541	777
4.50	0.28	0.06			A7	197157	28860	-5211752	776
3.42	0.16	0.09			ASIV	197051	28862	-66 3501	775
4.13	0.43	0.00	0.36	0.56	F5V	197692	28929	-2315018	779
3.43	0.90	0.62	0.67	1.16	KOIV	198149	28962	61 2050	783
2.46	1.04	0.87	0.72	1.29	KOIII	197989	28959	33 401A	780
3.77	0.01	0.04	0.07	0.07	A1V	198001	28978*	-10 5506	781
4.41	1.66	1.91	1.47	2.78	MSIII	198026	28979	- 5 5378	1543
4.11	1.66	1.93	1.25	2.19	K5III	198542	29079	-2715082	1546
4.72	0.33	0.08	0.26	0.41	AM	198743	29109	- 9 5598	1547
3.64	1.25	1.23			KOIII	198700	29133	-58 7788	785
5.00	1.49	1.80			K4III	199169	29178	27 3911	786
3.93	0.02	0.00	0.06	0.07	ΔΟν	199629	29251	40 4364	788
6.20	0.63	0.22			G1V	199960		- 5 5433	789
4.66	0.89	0.54			G4III	199951	29331	-3216353	1550
5.14	0.49	0.11			F4III	199532	29343	-77 1474	787
3.72	1.66	1.78	1.21	2.11	K5IB	200905	29459	43 3800	792
4.06	-0.01	0.01	0.01	-0.01	AOV	200761	29460	-17 6174	1552
4.50	1.60	1.96			MIIII	200914	29490	-2515235	791
4.51	0.94	0.69	0.69	1.15	GBIII	201381	29571	-11 553p	794
5.01	1.58	1.55			M2III	201371	29606	-70 2835	1554
3.19	1.00		0.69	1.18	6811	202109		29 4348	797
3.91	0.53			0.79	GOIII	202447		4 4635	800
4.23			0.13	0.16	BPIAB	202850		38 4431	1558
4.70	0.06	0.01			AP	202627	29774	-3216498	801
4.46	-0.12	-0.81	0.05	-0.03	B2VE	202904	29802	34 4371	1559
	0.23			0.21	A7V	203280		61 2111	803
	0.02			0.13	AOVP	203006	29854	-4114475	802
	0.90			1.10	GBIII	2033A7	29903	-17 6245	1561
	1.11			1.33	K1IV	203504	29914	19 4691	804
									-

EK4 NUMBER	NAME		TION IN RA	DECLINATION DEG MIN SEC	
1562 805 1563 806 807	18 AQR GAM PAV GAM IND ZET CAP 71 CYG	21 22 52.828 21 24 28.691 21 24 33.288 21 25 17.914 21 28 33.663	1.485 0.133 0.015	-12 58 54.89 -65 28 33.93 -54 45 54.41 -22 30 57.90 +46 26 3.44	79.74
808 1568 811 1569 812	RET AOR RHO CYG 74 CYG XI AOR GAM CAP	21 30 17.723 21 33 4.526 21 35 59.068 21 36 28.450 21 38 45.726	-0.250 -0.047 0.762	- 5 40 38.96 +45 29 6.89 +40 18 18.83 - 7 57 45.25 -16 46 17.34	1.66
810 817 814 1572 818	NIJ OCT 11 CEP IOT PSA NU CEP I AM CAP	21 38 51.973 21 41 34.439 21 43 31.225 21 44 45.280 21 45 14.599	2.389 0.286 -0.054	-77 29 52.99 +71 12 3.11 -33 8 9.81 +61 0 35.00 -11 28 38.37	10.52 -9.00 0.09
821 1574 1575 820 823	PI2 CYG 11 PEG 14 PEG NMI IND 16 PEG	21 45 54.228 21 46 0.904 21 48 46.832 21 48 46.865 21 51 58.094	0.067 0.131 -0.412	+49 11 53.22 + 2 34 28.38 +30 3 42.94 -69 44 32.15 +25 48 42.08	0.30
1577 822 825 830 827	MU CAP GAM GRU FPS IND 20 CEP ALP AGR	21 51 59.287 21 52 28.764 22 1 32.074 22 4 16.579 22 4 33.034	0.870 48.204 0.200	-13 39 55.59 -37 28 42.49 -56 53 8.07 +62 40 5.95 - 0 26 13.08	-254.49 6.35
1581 828 831 829 832	TOT AGRIOT PEG ALP GRU MU PSA	22 4 40.370 22 5 8.486 22 5 53.486 22 6 43.606 22 6 59.166	0.266	-39 39 35.21 -13 59 12.14 +25 13 38.59 -47 4 40.57 -33 6 22.95	-5.32 2.81 -14.85
833 835 834 837 836	27 PEG PI PEG THE PEG 24 CEP ZET CEP	22 8 9.654 22 8 55.107 22 8 59.275 22 9 20.877 22 10 1.108	-0.124 1.837 0.674	+33 3 16.79 +33 3 35.98 + 6 4 45.41 +72 13 22.52 +58 4 57.46	-1.65 3.25 1.03
838 840 841 839 1584	THE AGR ALP TUC EPS OCT 47 AGR	22 12 57.281 22 15 34.036 22 16 52.255 22 17 25.240 22 20 16.394	0.790 -0.791 1.969	-27 53 11.57 - 7 54 12.02 -60 22 47.71 -80 33 37.04 -21 43 8.66	-1.90 -3.88 -3.90
843 842 844 1585 845	31 PEG GAM AQR RET LAC PI AQR NU GRU	22 20 20.107 22 20 24.960 22 22 36.731 22 24 3.028 22 27 15.030	0.859 -0.180 0.116	+12 5 1.90 - 1 30 31.44 +52 6 30.48 + 1 15 18.46 -39 15 13.91	1.24 -18.32 0.53

MAGNITUDE V B-V	ES AND COLO	V-I	PECTRAL TYPE	HD NUMBER	GC NUMBER		FK4 NIIMBER
5.48 0.30 4.23 0.50 6.12 0.34 3.74 1.00 5.23 0.97	0.00 -0.07 0.04 0.59 0.64 0.80	1.06	FOIV F8V FOIII G4IB KOIII	203705 203608 203760 204075 204771	29957 29979 29994 30020 30108	-13 5923 -65 3918 -55 9586 -2215388 45 3558	805 1563 806
2.88 0.83 4.02 0.89 5.04 0.18 4.68 0.18 3.67 0.32	0.54 0.61 0.56 0.68 0.10 0.12 0.17 0.19 0.23	1.02 1.18 0.27 0.36	G0IB G8III A5 A7V F0P	204867 205435 205835 205767 206088	30137 30207 30263 30268 30320	- 6 5570 44 3865 39 4612 - 8 5701 -17 6340	1568 811 1569
4.55 1.11 4.33 -0.06	-0.10 -0.01 0.13 0.51	1.38 -0.04 0.94	KOIII KOIII AOVP AZIA AZV	205478 206952 206742 207260 207052	30289 30415 30439 30483 30481	-77 1510 70 1193 -3315734 60 2288 -12 6087	817 814 1572
4.23 -0.13 5.63 0.03 5.07 -0.02 5.51 1.38 5.06 -0.18	0.04 0.00 1.63	-0.17	83111 A0 A0V K5111 B3VE	207330 207203 207650 207241 208057	30512 30501 30565 30541 30635	48 3504 2 4414 29 4525 -70 2873 25 4635	1574 1575 820
5.07 0.38 3.00 -0.12 4.67 1.06 5.27 1.41 2.93 0.98	0.00 -0.43 -0.05 1.00 1.78 0.72 0.66	-0.11 1.13	F0V B8III K5V K4III G2IB	207958 207971 209100 209960 209750	30631 30640 30817 30904 30896	-14 6149 -3714536 -5710015 62 2029 - 1 4246	822 825 830
4.47 1.37 4.27 -0.07 3.76 0.44 1.74 -0.15 4.49 0.06	-0.29 -0.04 -0.03 0.39 -0.46 -0.08	-0.13 0.64 -0.14	MOIII R8V F5V B5V A2V			-4014639 -14 6209 24 4533 -4714063 -3315922	828 831 829
4.30 0.45 3.52 0.09	0.77 0.18 0.39 0.08 0.05 0.61 0.69 1.73 1.08	0.09	GG6 F5II A2V G8III K1IB	210418	30995 31016 31013 31037 31044	32 4349 32 4352 5 4961 71 1111 57 2475	835 834 837
5.43 -0.13 4.15 0.98 2.85 1.39 5.09 1.47 5.13 1.07	0.81 0.73 1.47 1.09	1.20	KSIII WGIII G8IV B8III	211416	31095 31152 31183 31166 31247	-2817653 - 8 5845 -60 7561 -81 995 -22 5897	841 839
5.00 -0.16 3.85 -0.05 4.42 1.02 4.66 -0.04 5.46 0.96	-0.11 0.04 0.78 0.76 -0.97 0.15	0.00 1.32	R2VE A0V G9III R1VE G9II1	212061 212496	31255 31257 31310 31328 31387	11 4784 - 2 5741 81 3358 0 4872 -3914723	842 844 1585

FK4 NUMBFR	NAME			DECLINATION	
846 1588 1590 1591 1592	DEL1 GRU 36 PEG 38 PEG SIG AQR BET PSA	22 27 50.411 22 27 56.044 22 28 55.769 22 29 22.623 22 30 8.654	0.378 0.274 0.002	-43 37 7.66 + 9 0 21.71 +32 26 57.88 -10 48 4.55 -32 28 10.48	-1.77 -1.01 -2.73
848 849 850 851 1595	ALP LAC HPS AGR FTA AGR 31 CEP KAP AGR	22 30 17.899 22 33 22.943 22 34 7.338 22 35 10.488 22 36 30.777	1.580 0.593 3.998	+50 9 31.76 -20 49 53.84 - 0 14 29.73 +73 31 6.68 - 4 21 8.03	-14.14 -5.10 3.04
853 852 854 855 857	30 CEP 10 LAC FPS PSA 7ET PEG FTA PEG	22 37 47.667 22 38 10.835 22 39 19.825 22 40 15.807 22 41 52.439	-0.003 0.224 0.540	+63 27 34.06 +38 55 30.19 -27 10 9.07 +10 42 20.54 +30 5 43.51	-0.05 0.47
858 859 1597 860 861	13 LAC LAM PEG 68 AQR FPS GRU TAU AQR	22 43 1.010 22 45 22.353 22 46 15.847 22 47 6.726 22 48 19.284	0.422 -0.718 1.167	+41 41 34.80 +23 26 20.50 -19 44 20.01 -51 26 36.51 -13 43 10.72	-19.84
863 862 864 865 866	TOT CEP MU PEG LAM AGR RHO IND DEL AGR	22 48 49.231 22 48 50.526 22 51 21.712 22 53 0.621 22 53 22.624	1.079 0.048 -0.766	+66  4  26.53 +24  28  34.58 - 7  42  27.69 -70  12  8.82 -15  56  55.72	7.30
867 868 1601 1602 871	ALP PSA ZET GRU PI PSA BET PSC ALP PEG	22 56 19.635 22 59 28.234 23 2 10.282 23 2 39.246 23 3 33.790	-0.690 0.579 0.071	-29 44 59.32 -52 52 59.47 -34 52 46.31 + 3 41 26.11 +15 4 33.12	-0.77 8.55 -0.43
1603 873 1605 1606 1607	55 PEG 88 AGR TOT GRU 59 PEG PHI AGR	23 5 47.615 23 8 10.079 23 9 0.328 23 10 31.382 23 13 4.738	0.381 1.298 -0.051	+ 9 16 46.46 -21 18 10.55 -45 22 37.04 + 8 35 22.44 - 6 10 43.03	
1608 878 877 879 880	PSI1 AGR GAM PSC GAM TUC GAM SCL TAU PEG	23 14 38.036 23 15 55.199 23 16 2.260 23 17 31.842 23 19 26.774	5.073 -0.322 0.173	- 9 13 7.43 + 3 9 3.40 -58 22 2.94 -32 39 46.64 +23 36 31.86	-1.23 2.24 8.94 -6.37 -0.17
1612 1613 882 881 883	98 AOR 67 PEG 4 CAS UPS PEG OMI GRU	23 21 42.638 23 23 40.085 23 23 45.789 23 24 10.716 23 25 16.330	0.108 0.127 1.404	-20 13 54.29 +32 15 10.29 +62 9 3.54 +23 16 18.82 -52 51 16.76	-9.03 0.44 -0.62 4.32 13.14

The Jarrey Wy. Section

V B-V	DES AND COLO U-8 V-R	RS S	PECTRAL TYPE	HD NUMBER	GC NUMBER	DM NUMBER	FK4 NUMBER
5.57 1.56 5.51 -0.10	-0.25		G2 K5 B9V	213009 213119 213323	31400 31408 31430	-4414931 8 4874 31 4708	1588 1590
4.83 -0.06 4.28 0.01			AOV	213320 213398	31440 31459	-11 5850 -3217126	
3.75 0.02 5.20 0.44 4.02 -0.09 5.07 0.38 5.03 1.14	0.00 -0.25 -0.05 0.00	0.00	A2V F3V R8V F4III K2III	213558 213845 213998 214470 214376	31471 31516 31534 31567 31581	49 3875 -21 6251 - 0 4384 72 1049 - 4 5716	849 850 851
	-1.04 -0.08 -0.38 -0.05 -0.27 -0.03		A2 09V RV B8V G2II	214734 214680 214748 214923 215182	31620 31626* 31646 31664 31706	62 2102 38 4826 -2716010 10 4797 29 4741	852 854 855
5.08 0.97 3.96 1.06 5.26 0.94 3.48 0.08 4.01 1.57	0.91 0.75 0.00 0.08		KOIII G8III G7III A2V MOIII	215373 215665 215721 215789 216032	31732 31776 31794 31813 31836	41 4594 22 4709 -20 6486 -5113389 -14 6354	859 1597 860
3.50 1.05 3.49 0.93 3.76 1.64 6.04 0.66 3.27 0.06	0.90 0.83 0.67 0.68 1.73 1.40 0.23 0.08 0.09	1.15 2.60	K1III G8III M2III G5V A3V	216228 216131 216386 216437 216627	31857 31851 31903 31926 31943	65 1814 23 4615 - 8 5968 -70 2971 -16 6173	862 864 865
	0.07 0.11 0.71 0.00 -0.49 -0.02 -0.06 0.01	-0.15		216956 217364 217792 217891 218045	32000 32061 32122 32134 32149*		868 1601 1602
4.52 1.57 3.66 1.22 3.89 1.02 5.15 0.13 4.22 1.56	1.23 0.84 0.87 0.75 0.07	1.44	KOIII KOIII KOIII	218670	32196 32246 32270 32302 32346	8 4997 -21 6368 -4514947 7 4991 - 6 6170	873 1605 1606
4.22 1.10 3.69 0.92 3.98 0.40 4.41 1.13 4.58 0.18	0.57 0.71 -0.04 1.07 0.84	1.23	KOIII G8III G8III A5IV	219615 219571	32374 32415 32413 32450 32503	- 9 6156 2 4648 -58 8062 -3316476 22 4810	878 877 879
3.96 1.10 5.57 -0.10 4.97 1.68 4.41 0.61 5.52 0.40	-0.26 2.07		KOIII B9III M1III F8IV F3IV		32540 32577 32582 32585 32603	-20 6587 31 4904 61 2444 22 4833 -5310461	1613 882 881

TABLE 1 CONTINUED

FK4 NUMBER	NAME	RIGHT ASCENSION HRS MIN SEC	PROPER MO- TION IN RA SEC/CENT	DECLINATION DEG MIN SEC	PROPER MO- TION IN DEC SEC/CENT ,
884 1614 885 886 1616	THE PSC 70 PEG RET SCL 15 AND	23 25 42.050 23 26 44.948 23 27 56.333 23 31 41.218 23 33 26.784	-0.821 0.437 0.727	+ 1 7 26.53 + 6 14 49.08 +12 37 41.09 -37 57 4.90 +40 6 14.70	-4.10 3.44
891 893 892 1619 1618	TOT AND GAM CEP IOT PSC KAP AND MU SCL	23 36 57.234 23 38 20.872 23 38 42.852 23 39 13.220 23 39 22.702	-2.008 2.512 0.753	+43 8 6.61 +77 29 54.42 + 5 29 46.05 +44 12 3.57 -32 12 21.46	15.55 -43.22
1620 1621 1622 1623 898	LAM PSC 106 AGR PSI AND 20 PSC PHI PEG	23 40 49.239 23 42 57.412 23 44 50.311 23 46 42.440 23 51 15.843	0.186 0.088 0.617	+ 1 38 52.62 -18 24 36.73 +46 17 13.38 - 2 53 42.23 +18 59 13.25	0.19
1629 902 903	PSI PEG OME PSC EPS TUC	23 56 31.934 23 58 4.625 23 58 40.793	1.019	+25 0 29.02 + 6 43 49.61 -65 42 38.51	

TABLE 1 CONTINUED

MAGNITUDES AND			COLORS		SPECTRAL	HD	GC	DM	FK4
V	B-V	U-B	V-R	V - I	TYPE	NUMBER	NUMBER	NUMBER	NIIMBER
4.93	0.03	-0.02	0.08	0.04	A2P	221825	32620	n 499	8 884
4.27	1.07	1.01	0.80	1.33	K1III	220954	32647	5 517	3 1614
4.54	0.94	0.73	0.74	1,19	GSIII	221115	32667	11 500	9 885
4.37	-0.10	-0.34	0.00	-0.07	AP	221507	32744	-381552	7 886
5.60	0.08	0.09			AZIII	221756	32780	39 511	4 1616
4.27	-0.10	-0.32	0.02	-0.07	7 BBV	222173	32850	42 472	0 891
3.22	1.03	0.93	0.77	0.28	KIIV	222404	32875	76 92	8 893
4.13	0.51	0.00	0.43	0.72	F7V	22236A	32879*	4 503	5 892
4.14	-0.08	-0.25	0.02	-0.06	B8V	222439	32886	43 452	2 1619
5.30	0.97	0.00			KOIII	222433	32888	-321762	1 1618
4.50	0.20	0.09	0.19	0.29	Α7٧	222603	32917	0 503	7 1620
5.27	-0.09				R8V	222847	32958	-19 650	0 1621
4.95	1.12	0.82			G5IB	223047	32988	45 432	1 1622
5.48	0.94	0.70			GBIII	223252	33029	- 3 570	7 1623
5.05	1.60	0.00			M2	223768	33119	18 523	1 898
4.64	1.60		1.46	2.80		224427	33230	24 486	
4.02	0.41	0.05	0.38	0.62		224617	33262	6 522	
4.49	-0.09	-0.24			BBV	224686	33280	-66 381	9 903

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